AN HBJ PUBLICATION

NOVEMBER 1985/$2.00

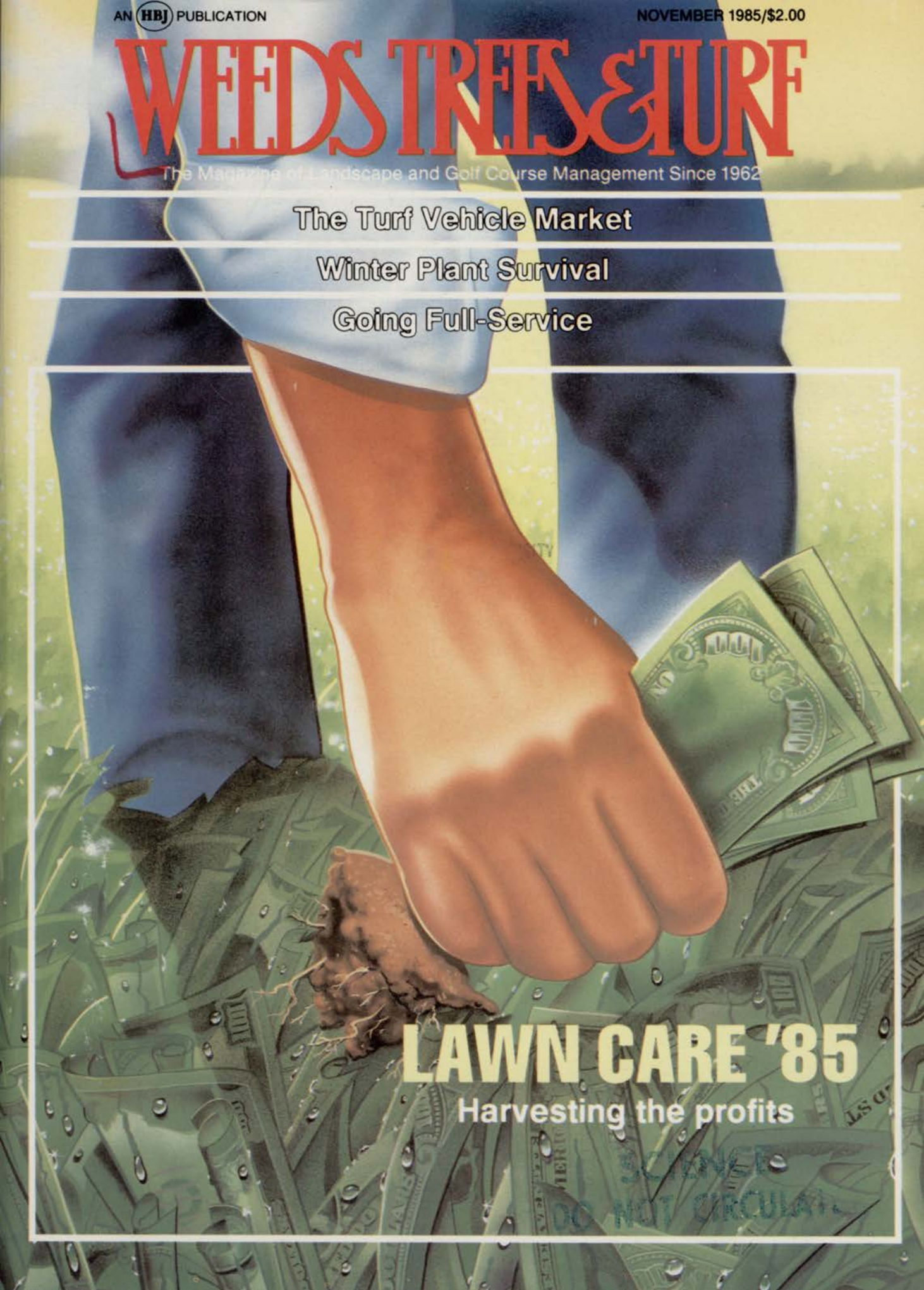
WEEDS TREES & TURF

The Magazine of Landscape and Golf Course Management Since 1962

The Turf Vehicle Market

Winter Plant Survival

Going Full-Service



LAWN CARE '85

Harvesting the profits

SCIENCE
DO NOT CIRCULATE

LAWNCARE
LAWNCARE
LAWNCARE
LAWNCARE
LAWNCARE
HERSHEY

NEW... Now Low Odor.

We were helping LCOs stay ahead of the pack before there was a pack.

Back when you could count lawn care operators on one hand, Dow perfected a highly effective insecticide for use in turf. Research showed that this insecticide, called chlorpyrifos, gave immediate control over a broad spectrum of surface feeding insects. And it kept on controlling them for weeks.

That was the start of DURSBAN* insecticides. They were developed and registered for turf applications before any other use. And as the lawn care profession grew, the reputation of DURSBAN spread. LCOs across the country, looking for cost-effective insect control, have found the answer in DURSBAN.

They know that it stays where it's applied, because it bonds tightly to organic material in soil as soon as it dries. So it won't cause damage to non-target species. Won't wash away with rain or watering. And retains its control power for 6 to 8 weeks. They like its broad spectrum label for turf, ornamental and shade tree insects.

And now, DURSBAN Turf Insecticide contains a new, more highly purified grade of chlorpyrifos. The result: far less odor to trigger complaints from neighbors and customers, and more pleasant working conditions for applicators.

DURSBAN effectiveness has been thoroughly researched and confirmed in decades of testing at leading universities. And DURSBAN is the *only* turf insecticide on which human toxicity testing has been conducted. So lawn care applicators can apply it with complete confidence, and customers need not worry about the safety of their pets and children after the treated surface has dried.

Dow's partnership with lawn care professionals and golf course managers goes far beyond supplying advanced products. We also conduct many types of market and product research, and share the results for your benefit. We produce helpful training materials for applicators, operators and others. In cooperation with the PLCAA, we have prepared materials to answer frequently asked consumer questions concerning the effect of chemicals on the environment.

DURSBAN insecticides. Developed for lawn care operators—preferred by lawn care operators. Available as emulsifiable concentrates or wettable powders. If you're not using DURSBAN, you could get left behind. Talk to your distributor today.

DURSBAN*

Years ahead of the rest.

DOW*

*Trademark of The Dow Chemical Company

© Copyright of The Dow Chemical Company 1985.

Circle No. 110 on Reader Inquiry Card

5208

NOVEMBER, 1985 VOLUME 24, NUMBER 11

WEEDS TREES & TURF

The Magazine of Landscape and Golf Course Management Since 1962

22 Turf vehicles
A bull market, yet manufacturers aren't certain what turf managers really want.

26 Lawn care
A recent survey shows the chemical lawn care and landscape maintenance market hitting $2.8 billion this year.

30 Goin' green
A service giant spawns a network of new lawn care companies.

36 One roof, two operations
A Michigan company has found that you can successfully blend pest control and lawn care operations.

42 Tapping an immature market
Youthful Southern California has been slow to develop its lawn care industry. A Riverside firm is growing with the market.

44 Solving problems
A North Dakota custom applicator seeks new ideas to old problems.

48 Catering to industry
Stockton, Calif., is a solid lawn care market for two detail-oriented Californians.

54 Winter injury
What you can do to protect your plant materials from the harshness of the coming months.

58 Management in business
Direct mail programs should be just a part of an overall marketing plan.

60 Hands-on experience
Learning by doing is why a North Carolina community college is thriving.

DEPARTMENTS

6 Trends
8 Green Industry News
14 Sports Turf
20 Shortcuts
66 Jobtalk
70 Problem Solvers
72 Products
73 Events
74 Classified
82 Ad Index
84 Outlook

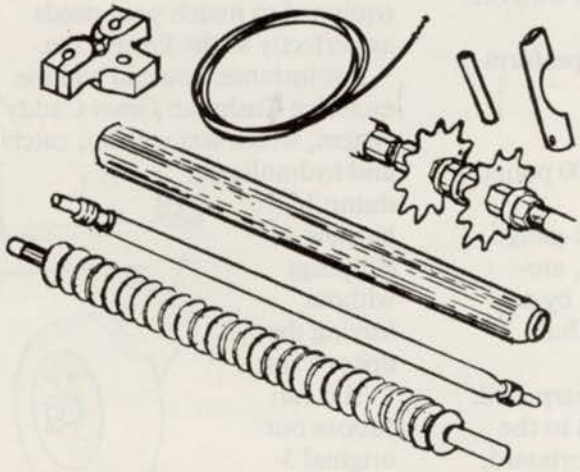
Cover illustration by Joel Rogers, Cleveland, Ohio.

WEEDS TREES & TURF (ISSN 0043-1753) is published monthly by Harcourt Brace Jovanovich Publications. Corporate and Editorial offices: 7500 Old Oak Boulevard, Cleveland, Ohio 44130. Advertising Offices: 7500 Old Oak Boulevard, Cleveland, Ohio 44130, 111 East Wacker Drive, Chicago, Illinois 60601 and 3091 Maple Drive, Atlanta, Georgia 30305. Accounting, Advertising Production and Circulation offices: 1 East First Street, Duluth, Minnesota 55802. Subscription rates: $20 per year in the United States; $25 per year in Canada. All other countries: $50 per year. Single copies (pre-paid only): $2 in the U.S.; elsewhere $4.50; add $3.00 for shipping and handling per order. Second class postage paid at Duluth, Minnesota 55806 and additional mailing offices. Copyright© 1985 by Harcourt Brace Jovanovich, Inc. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher.

POSTMASTER: Send address changes to WEEDS TREES & TURF, P.O. Box 6198, Duluth, Minnesota 55806-9898.

AN HBJ PUBLICATION

LESCO has the parts advantage



LESCO Parts are on Sale!

BUY NOW

Save 10% on orders up to $250; 15% on orders over $250. Sale ends December 15, 1985.

LESCO gives you parts that fit and parts that work and then goes one step further and gives you realistic prices.

Equipment parts that get the job done right are vital to the daily operation of every golf course. LESCO knows that.

That's why LESCO adheres to strict specifications, purchases only the finest American-made steel and uses the most advanced manufacturing, heat treating and plating processes to produce reels, gears, bedknives and other parts.

But LESCO also knows value. LESCO manufactures and sells direct to the user —no distributors to increase costs. You get dependability, durability and service . . . all at a realistic price. That's the advantage. LESCO builds in the quality and then goes one step further.

(800) 321-5325 NATIONWIDE **(800) 362-7413 IN OHIO**

LESCO

LESCO, Inc., 20005 Lake Road, Rocky River, Ohio 44116 • (216) 333-9250

Circle No. 125 on Reader Inquiry Card

WHY THE CUSHMAN FRONT LINE™ IS BUILT TO LAST:

*We stand behind the performance and durability of every new Front Line mower with a 2-year warranty.**

The 1986 Cushman Front Line is not the cheapest mower you can buy.

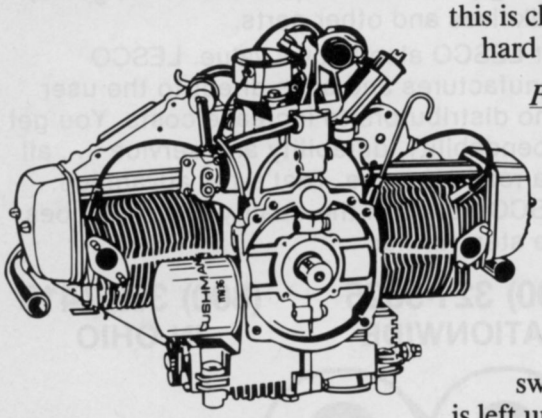
But it is most certainly the least costly mower you can **own.** Simply because it's built to last years longer than any other mower made today.

Here's the proof.

A PROVEN 22-HP ENGINE.

Every gas-powered Front Line is equipped with our proven 22-hp Cushman engine.**

It gives you the power to maintain speed through tall grass, dense weeds and other conditions that might stop other mowers.



It's built the way you want an engine built—tough. The crankshaft is forged alloy-steel. The cylinder heads are reinforced for extra strength under stress. And all the details—from the Teflon-coated O-rings and the swaged-in-place valve guides, to our exclusive Clean-Air Induction System—were designed with one goal in mind.

Years of dependable performance.

BUILT TO LAST.

The Front Line is 1300 pounds of mowing muscle.

Its mowing deck is 12-gauge carbon steel; reinforced, arc-welded and surrounded by a tubular torsion system that prevents twisting.

From the machine-sharpened, heat-treated steel blades to the diamond-plate steel floorboard, this is clearly a machine made for hard work.

FIRST CLASS MOWING.

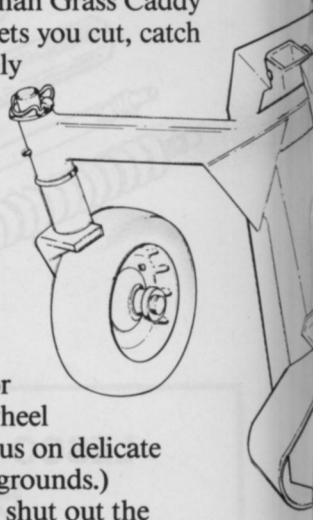
Here's where it all pays off: the quality of a Front Line mowing job.

The three cutting blades are positioned to overlap each others' swath slightly. So no grass is left uncut. The driver can maneuver around bushes, trees and sidewalks with incredible precision, thanks to the Front Line's Dual Traction Assist pedals—separate braking for each of the two front wheels that gives you a zero turning radius.

THE CHOICE IS YOURS.

No other mower can be equipped to match your needs as perfectly as the Front Line.

For instance, you can add the exclusive Cushman Grass Caddy™ system, which lets you cut, catch and hydraulically dump 16 bushels of clippings without leaving the driver's seat.



You can choose our original 3-wheel design, or Cushman's 4-wheel model (a big plus on delicate turf or steeper grounds.)

You can also shut out the elements with a weathertight cab. And keep your Front Line working all year with a Snow Thrower or Rotary Broom accessory.

A FREE DEMONSTRATION

See the Cushman Front Line in action. Contact your Front Line dealer today, or write: 3206 Cushman, P.O. Box 82409, Lincoln, NE 68501. Or, call toll-free:

1-800-228-4444.

*See your dealer for details.
**Diesel power is also available.

Circle No. 105 on Reader Inquiry Card

CUSHMAN®

Our reputation is built to last.

©Outboard Marine Corporation, 1985.
All rights reserved. CFL6-7981

by the editorial staff, Weeds Trees & Turf

A new name?

The Golf Course Superintendents Association of America did an extensive survey of members last year. One of the statistics resulting from the survey was that 36 percent of the golf courses in the United States are nine-hole courses.

But an even more important statistic is that a very high percentage of golf course superintendents didn't like their title. Forty-five percent of the superintendents surveyed, in fact, preferred the title "golf course manager."

If this trend continues, it could present the Golf Course Superintendents Association of America with an interesting problem.

Talking lawns on the train

Usually, as the train pulls out of the rail station and makes its way to New York City, the morning chatter centers on last night's Yankees game or the latest news from Wall Street.

But, during last May and June, the main topic of discussion was lawn care, thanks to Dr. Henry Indyk of Rutgers University.

Dr. Indyk, specialist in turf management at the university's Cook College, gave tips to commuters on how to take care of lawns. The seminars were a part of an on-board lecture series offered by New Jersey Transit.

The lectures, held on four different rail lines, were a success. In all, more than 400 commuters took advantage of the seminars, which were held in a designated rail car. "It certainly was a moving experience," said Dr. Indyk, playing on words. "It's a great idea, and it's probably the most unusual place I've given a lecture."

Death of a lawn mower

Power lawn mowers are dying prematurely across the country, victims of owner abuse and neglect, according to a survey of mower-care professionals.

The poll—dubbed the "Mower Murder" survey by Autolite Spark Plugs—was taken at the Lawn and Garden Expo in Louisville, Ky. this past summer. Of 1,715 mower-care specialists queried, 20.8 responded.

A majority (50.4 percent) said that properly maintained mowers should last five to ten years. Nearly as many (42.9 percent) pegged it at 10 years or more. More than 80 percent said that most engine failures could be avoided with preventative maintenance.

Top causes of engine failure were, beginning with the most-cited:

- insufficient oil (89.4 percent)
- poor air filter maintenance (60.2 percent)
- striking rocks or objects with mowers (51.8 percent)
- old oil in the crankcase (47.1 percent) and
- overheating due to clogged cooling fins (37.5 percent).

STAFF

Editor
Jerry Roche, Cleveland
Managing Editor
Ken Kuhajda, Cleveland
Associate Editor
Ron Hall, Cleveland
Publisher
Dick Gore, Atlanta
Senior Vice President
Tom Greney, Chicago
Group Vice President
Robert Earley, Cleveland
Production Manager
Anne MacLean, Duluth
Production Supervisor
Marilyn MacDonald, Duluth
Graphic Design
Denise Johnson, Duluth
Graphic Coordinator
David Komitau, Cleveland
Circulation Supervisor
Laurie Miller, Duluth
Directory Coordinator
Corinna Betterman, Duluth
Reader Service Manager
Gail Kessler, Duluth
Promotion Director
Linda Winick, Cleveland

OFFICES

ATLANTA
455 East Paces
Ferry Road Suite 324
Atlanta, GA 30305
(404) 233-1817

CLEVELAND
7500 Old Oak Boulevard
Cleveland, OH 44130
Editorial: (216) 243-8100

CHICAGO
11 East Wacker Drive
Chicago, IL 60601
(312) 938-2344

SEATTLE
1333 N.W. Norcross
Seattle, WA 98177
(206) 363-2864

DULUTH
120 West Second Street
Duluth, MN 55802
(218) 723-9200

MARKETING REPRESENTATIVES

Dick Gore
Atlanta (404) 233-1817
Ron Kempner
Atlanta (404) 233-1817
Joe Kosempa
Cleveland (216) 243-8100
Robert Mierow
Seattle (206) 363-2864

HBJ HARCOURT BRACE JOVANOVICH PUBLICATIONS

Robert L. Edgell, Chairman; Richard Moeller, President; Lars Fladmark, Executive Vice President; Arland Hirman, Treasurer; Thomas Greney, Senior Vice President; Ezra Pincus, Group Vice President; Joe Bilderbach, Vice President; James Gherna, Vice President; George Glenn, Vice President; Harry Ramaley, Vice President.

Start growing bigger profits... from the ground up.

Lebanon Professional Turf Products keep you in control.

You know what you're looking for when it comes to maintaining your customer's lawns. And we've got what you're looking for in a wide range of flexible products.

Take our famous homogenous granules, for instance. Each contains a special chemical combination of nitrogen, phosphorous and potash, plus secondary and trace elements. So every plant comes into contact with every vital element, plus you get more even plant-food distribution, more economically.

Our sulphur-coated urea blends, on the other hand, let you custom-tailor a lawn care program to meet your customer's needs. You can control the time of greening, as well as the length, to keep profitability at a maximum.

Quick green up...extended feeding.

The secret is our exclusive "C.I.L. Prilled S.C.U." Its consistent, round granular size results in a more even breakdown of nitrogen, plus you get a high sulphur content. Your customers' lawns show lush results fast—and stay green for as long as 3 months or more!

No turf is too tough for Lebanon's products.

We have more than three dozen standard fertilizer, sulphur-coated urea blends and fertilizer/chemical control products to solve just about any turf problem. But soil conditions vary, and so do your customers' requirements. Just tell us what you need, and we'll be happy to put our more than 35 years' experience to work to meet your needs. We can formulate an exclusive blend just for your company that will coax the kind of turf you want, when you want it.

Service that's ahead of the competition.

It can help put you ahead of your competition, too. From custom-designed turf care programs to a solid nationwide distribution network, **Lebanon** can assure you of knowledgeable, prompt service. And our entire range of proven top-performance products are developed to help you give your customers better lawn care where it counts. From the ground up.

Call us today...and start getting what you need.

We'll send you a free copy of our agronomy manual at no obligation. And we'll tell you how we can start giving you and your customers better quality turf from the ground up. Call our **Greenline** today at 1-800-233-0628; in Pennsylvania, 717-273-1687.

The GREENLINE

Lebanon
TOTAL TURF CARE
A division of Lebanon Chemical Corporation
P.O. Box 180 • Lebanon, PA 17042

Circle No. 124 on Reader Inquiry Card

GOLF

Firestone gets cosmetic surgery

Firestone Country Club in Akron, Ohio, looked a bit tattered in September: all that lied at the end of each fairway on the South Course were craters and mounds of dirt.

No worry, says club superintendent Brian Mabie, who oversaw the replacement of all 18 greens after a two-year fight against bacterial wilt.

"You've got to make a mess to make progress. We had a lot of work to do," he tells WEEDS TREES & TURF. But by the spring, "all we should have to do is put on finishing touches."

Work began immediately after the annual World Series of Golf held Aug. 21-25, says Mabie.

And it was more than just replacing greens. At the same time, Firestone employees and independent contractors installed a drainage system beneath all greens where previously there was none.

Spectator mounds were constructed and small, subtle changes made.

It was all part of bringing the course up to USGA specs, he says.

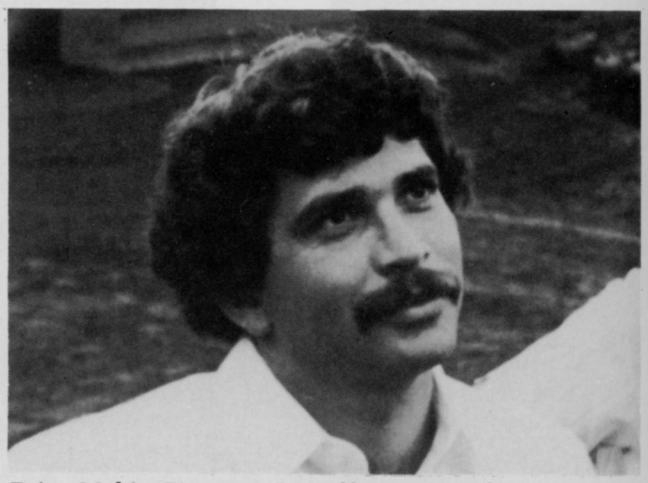
Some of those changes: slope alterations on 10 greens with a severe contour change on No. 17; widening both the pond and fairway on No. 16 (the Monster); shortening No. 5 to 200 yards (from 234); reducing the green at 18 to almost half of what it was; and a general rebunkering.

"We're not trying to redesign things here. We're doing what everyone has suggested doing for years. We're working with a design that was developed in the 1920s," says Mabie.

Tom Pearson, respected architect for Golforce Inc., suggested the changes after perusing the Firestone layout. Golforce Inc. is owned by Jack Nicklaus.

"It was a tough thing that Tom did," says Mabie. "We've tried to improve the course without losing the characteristics that make it Firestone."

Mabie called in Tifton, Ga., resident Ernest Jones to shape the greens to specs suggested by Golforce.



Brian Mabie, *Firestone CC golf superintendent.*

Those greens were seeded with Penncross bentgrass, says Mabie. No more local bentgrasses for Firestone.

The old Nimisila bentgrass developed bacterial wilt in the spring of 1984 and was effectively controlled with a bactericide over two golf seasons.

"It's funny," says Mabie. "They say the disease is stress-related but I didn't have it in my stress areas."

He continues: "We're one of the few course in northeast Ohio to have the disease, but it's really not that big of deal. I was amazed at the misinformation that came out about our greens."

Mabie says not one media type contacted him during tournament week to get facts on the problem.

Firestone, owned and operated by Club Corporation of America (CCA), will be new and improved by next spring, says Mabie, for both the golfer and spectator.

—*Ken Kuhajda*

GOLF

Survey lists turf maintenance problems

Annual bluegrass, dandelions and crabgrass are the most prominent problem weeds in the green industry, according to a survey recently released by the Mobay Chemical Co., Kansas City, Mo.

Forty-nine-and-a-half percent of all golf course superintendents who responded to the survey indicated that crabgrass was a major summer weed problem. Fifty percent said that dandelions were a major spring weed problem. Poa annua was most-cited as a major problem in the fall and winter.

Leading disease problems, by season, were helminthisporium leaf spot (spring), brown patch (summer), dollar spot (fall) and fusarium patch (winter). Each of those diseases was named as a problem by more than 50 percent of the survey respondents.

Fusarium and fairy ring were called the "most difficult to control diseases because there's no effective product on the market" by 6.1 and 5.8 percent of golf course superintendents polled.

Cutworms were cited as a major summer insect problem by the most superintendents. Grubworms were ranked first in the spring and fall, and mole crickets were tops (on only 3.4 percent of responses) in the winter.

Most-named "difficult-to-control insect problem because there's not an effective product on the market" was the mole cricket, cited on 4.5 percent of the returned questionnaires.

Approximately 300 responses were received from golf course superintendents. Questionnaires were also received from three other turf care segments: chemical lawn care, landscape contractors and grounds superintendents. Results of those segments closely approximated those from the golf course market.

Specific to the golf course market, however, was one question: "What trends most affect golf course management?"

Most frequent responses, in order of frequency, were:

- "increased maintenance costs/budget cuts"
- "increased play that is hard on the course"
- "restrictions on pesticide applications"
- "increasing green speeds that require more maintenance" and
- "lower fairway mowing heights."

TREES

Chain saw massacre ends in $17,000 fine

The next time your neighbor trims your tree that's dropping leaves on his property, show him this story.

Back in 1982, Julie Mattison of Mission Hills, Calif., and her mother were raking leaves in the back of their home when mom asked daughter to trim the neighbor's tree, an Oriental Orchid (Bauhinia variegata), whose leaves were falling onto the Mattison's property.

The story, as reported by the *Los Angeles Times* and reprinted in Landscape Contractor (the publication by the California Landscape and Irrigation Council Inc.), continues:

Julie, now a 17-year-old high school senior, went a little crazy with the saw. By the time she finished the 30-foot, 15-year-old Orchid was reduced to a five-foot dwarf.

"I guess I got carried away," Julie told the *Times*.

The Mattison's neighbor, Carollee Dunson, obviously unamused, decided to prosecute the Mattisons and a Van Nuys jury awarded her $8,753 in actual damages and $100 in punitive damages.

But that's not all. The Superior Court judge, citing a state law designed to protect trees against "wrongful injury," *doubled* the actual damage total to *$17,506!*

Why such a high total?

According to the article, a nursery employee testified that a new Oriental Orchid costs $1,800.

However, planting the 54-inch box containing the tree requires a 100-ton crane with a 210-foot boom at a cost of $6,000, the nurseryman said.

That's no typo. The Mattison's attorney couldn't believe it either. "Outrageous," said attorney Robert Priver. "Do you mean to say you need a 210-foot crane to replace a little tree?"

The jury evidently bought the nurseryman's testimony.

And here's the kicker: the tree's original buyer testified during the two-day trial that she paid 99 cents for the two-inch Orchid 15 years ago.

In Dunson's original suit filed in late October 1982, she had asked $126,259 in damages.

WEEDS

This Weed has good turf

An unlikely name, Weed, but a jewel of a town at the base of Mount Shasta in Northern California. Nice parks too.

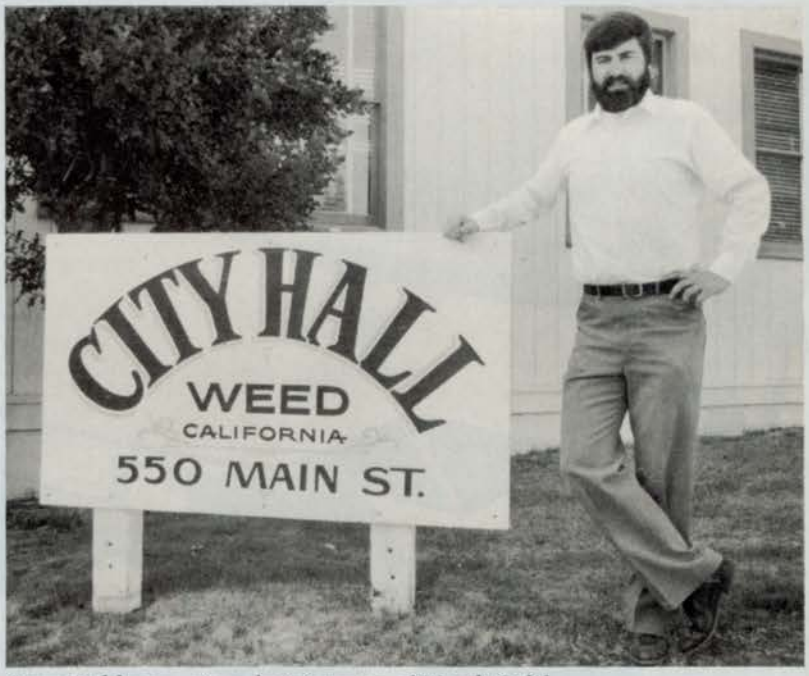
Patrick "Pappy" Lobis says its the soot from the old powerhouse that enriches his soil, makes his park turfgrass grow.

Years ago when lumber was a bigger deal than it is now in Weed they carted tons of sawdust from the sawmill to the powerhouse and burned it to generate electricity.

"I think all that soot worked into the soil and helped it," says Lobis, parks supervisor for the Weed Recreation and Park District.

Whatever the reason, Weed boasts a small but enviable parks system. "Pappy" and his small crew (two fulltime, two seasonal workers) tend four parks, about 30 acres of healthy Kentucky bluegrass.

"We've got a great Little League program, co-ed softball, and the high school and college (College of the Siskiyou) use our parks too."



Steve Feldman, *city administrator of Weed, Calif.*

City administrator Steve Feldman says Weed has about 3,000 people, but the parks department serves another 2,000 in the immediate area.

Feldman came to Weed almost two years ago after picking up his PhD at Oregon State University. He says he came to Weed in large part because of the beauty of the area.

The name Weed?

"The town was named after Abner Weed. He began the lumber mill here," says Feldman.

TREES

Plant wise; reap fuel savings and comfort

You can save 20 percent of home winter heating costs and as much as 80 percent of summer air conditioning expenses with effective landscaping, says one Northeast expert.

"It's important for homeowners to consider summer and winter energy needs when developing a landscaping plan," says Dr. David R. DeWalle of Pennsylvania State University. The forestry specialist adds, "I've seen more homes with improper landscaping than with proper landscaping."

Dr. DeWalle gives these tips:

- Vegetation should not shade the home in winter. It reduces natural solar heating.
- Shade trees should not be planted on the south side of the home. Shade for east and west walls reduces air conditioning costs more.
- Single or double rows of trees planted upwind from the home reduce wind velocity and cut down on cold air through doors and windows.
- Shrubs planted around the foundation of the home save energy by deflecting winds from the home.

Says Dr. DeWalle, "Landscaping is most beneficial for single-family homes. While homeowners may face practical limitations on their lots, there are still things they can do with landscaping to reduce their fuel bills."

PESTICIDES

Insurance law threatens 1986 spraying in Mass.

A revision in Massachusetts' pesticide laws will be needed before applicators will be able to spray in that state in 1986. The reason?

Applicators must show, in addition to general liability coverage, evidence of pollution and contamination insurance. But, because of sweeping changes in the insurance industry, that coverage either is or soon will be unavailable.

The National Arborist Association (NAA) and the Professional Lawn Care Association of America (PLCAA) are working with the state pesticide bureau to find a solution.

Says Robert Felix, executive director of the NAA: "The lawmakers in Massachusetts have to generate some kind of solution. They're the only ones who can."

Mark Buffone, certification coordinator for that state's pesticide board agrees and he's optimistic they will. But, he says pesticide applicators must also prepare themselves for tighter licensing requirements and stricter enforcement.

"We've been on top of this," Buffone tells WT&T, "probably to the industry's suprise. We know we've got to do something by January 1 or find out who's offering this type of coverage."

Slicing this legal Gordian knot, he explains, might not be more difficult than an "emergency regulation" which would allow applicators to work while giving lawmakers time to study the issue and meet with the insurance industry.

Even so, insurance is secondary to the main issue: the public's confidence, Buffone says.

"Let's have tough licensing standards and let the public know they're

Columbia Utility Vehicle

Built in America.

Columbia vehicles have more American-made components than any other make. The entire engine, carburetor and body are built in the U.S. Compare our service, warranty, price and many standard features including automatic oil injection. You'll find Columbia's Utility Vehicle the logical alternative with the capacity and versatility you need. . . plus All-American quality and craftsmanship. Call toll-free or mail the reader inquiry card for more information.

Steel rear body with aluminum flatbed is standard equipment

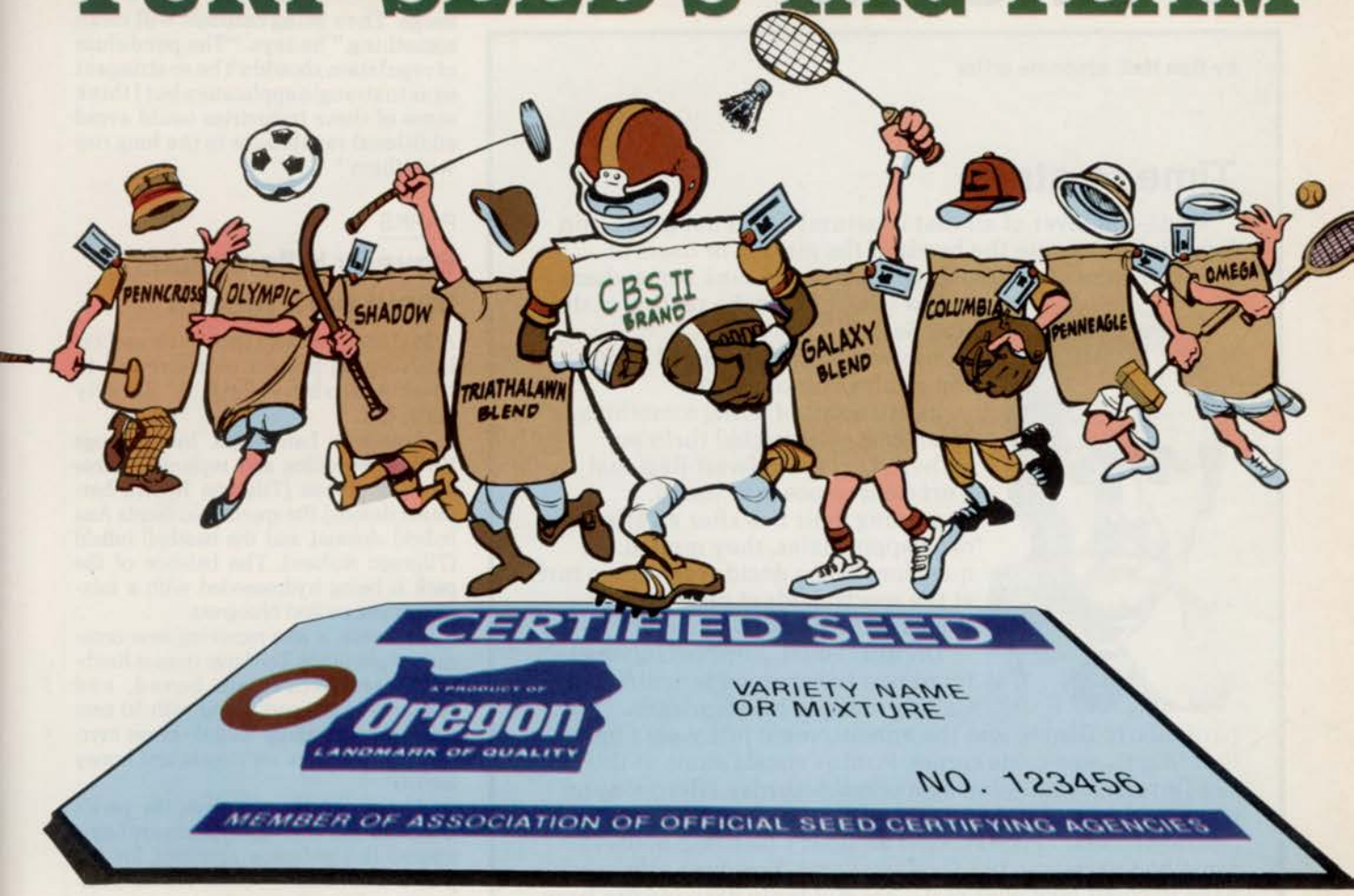
Columbia offers an optional cargo box with either steel or finished wood sides and tailgate

COLUMBIA PARCAR

One Golf Car Road, P.O. Box 1, Deerfield, WI 53531
1-800-222-GOLF

Circle No. 107 on Reader Inquiry Card

TURF-SEED'S TAG TEAM



Turf-Seed's Oregon Certified Top Performers qualify for valuable prizes or cash to qualified turf associations and consumers

Perennial Ryegrasses
Citation II
Omega II
Birdie II
Manhattan II
CBS II
2DF

Fine Fescues
Shadow
Flyer
Fortress
Waldina
Aurora
Bighorn

Tall Fescues
Olympic
Apache
Triathalawn blend

Kentucky Bluegrasses
Columbia
Midnight
Challenger
Galaxy blend

Creeping Bentgrasses
Penncross
Penneagle
Pennway Blend

Ask your distributor, or call us for details on our Blue Tag Redemption Program.

And, if you're a turf Professional, you'll want **Turfin' USA.** This twelve page guide is yours for the asking. Order your copy today from:

TURF-SEED
Turf-Seed, Inc.
®

P.O. Box 250, Hubbard, OR 97032
503/981-9571 TWX 510-590-0957

Circle No. 148 on Reader Inquiry Card

by **Ron Hall**, associate editor

Time to strike

God—the lover of all that is natural—will not likely rain lightning bolts onto the heads of the makers or users of artificial grass. As miracles go, that would rank somewhere below (way below) the parting of the Red Sea.

Anyway, we're supposed to do some things for ourselves.

In this spirit of doing something, a small cast of respected turfmen gathered at the Midwest Regional Turf Conference last March. Loosening their ties after an afternoon of swapping tales, they mulled the question: "Who decides synthetic turf at the sports fields at our schools? Who are the *decision makers*?"

Dr. Bill Daniel, Purdue University's imminent turfgrass expert, directed. Galling to those in attendance, particularly Daniel, was the annoucement just weeks before that Illinois was going carpet. Purdue stands alone as the only Big Ten school still playing football Saturday afternoons on grass, real grass.

The *decision makers*? After an hour's discussion, they remained nameless and faceless. Some, however—those who have decided fake over real—are suddenly drawing fire from the popular press. Opinions are being molded by magazines and newspapers at the breakfast table.

Sports Illustrated blistered sports carpets with a 21-page spread in its August 12 edition. *Nightline* fueled the controversy on national television. Syndicated columnist Jody Powell scalded synthetic turf in some of the nation's most respected newspapers.

But, proponents of synthetic surfaces aren't taking the critical press lightly.

Francis Reining, a Monsanto general manager (Monsanto's Astroturf is the most popular synthetic on the market), responded to *Sports Illustrated*. In part he wrote:"Opinion is one thing. But when you attempt to unilaterally denigrate an industry, you have a responsibility to present conflicting opinions of acknowledged experts and facts on both sides of the argument."

The controversy heats.

That's good news for us in the turf industry. We've shown we're not good crusaders. We've build a case—injury data and costs—but we can't seem to find, never mind convince, those with the final say.

Now we find ourselves with allies. That small group, as indecisive as it seemed last March, guides us.

Let's find these *decision makers* while public opinion simmers. Let's present our side of the story again. Soon.

tough. Then being certified will mean something," he says. "The pendulum of regulation shouldn't be so stringent so as to strangle applicators but I think some of these industries could avoid additional regulations in the long run with them."

PARKS

Beverly Hills serious about park facelift

A $2.5 million turf renovation and relandscaping project is underway in 10-acre Roxbury Park in Beverly Hills, Cal.

American Landscape, Inc., Canoga Park, is regrading and replanting three bowling greens (Tifgreen hybrid bermuda stolons), the sports field (Santa Ana hybrid stolons), and the baseball infield (Tifgreen stolons). The balance of the park is being hydroseeded with a mixture of fescue and bluegrass.

The park is also receiving new ornamental plantings. Ten large trees at Roxbury were excavated, boxed, and relocated in the park along with 50 new trees. New plantings include crape myrtles, liquidambers, redwoods, and honey locusts.

Along with the plantings, the park's irrigation and drainage systems are being upgraded. Landscape architect for the project is Ericksson, Peters, Thoms & Associates of Pasadena.

New lighting, bleachers, walkways, and a 7,000-sq-ft clubhouse round out the improvements which should be completed by mid-December.

MUNICIPAL

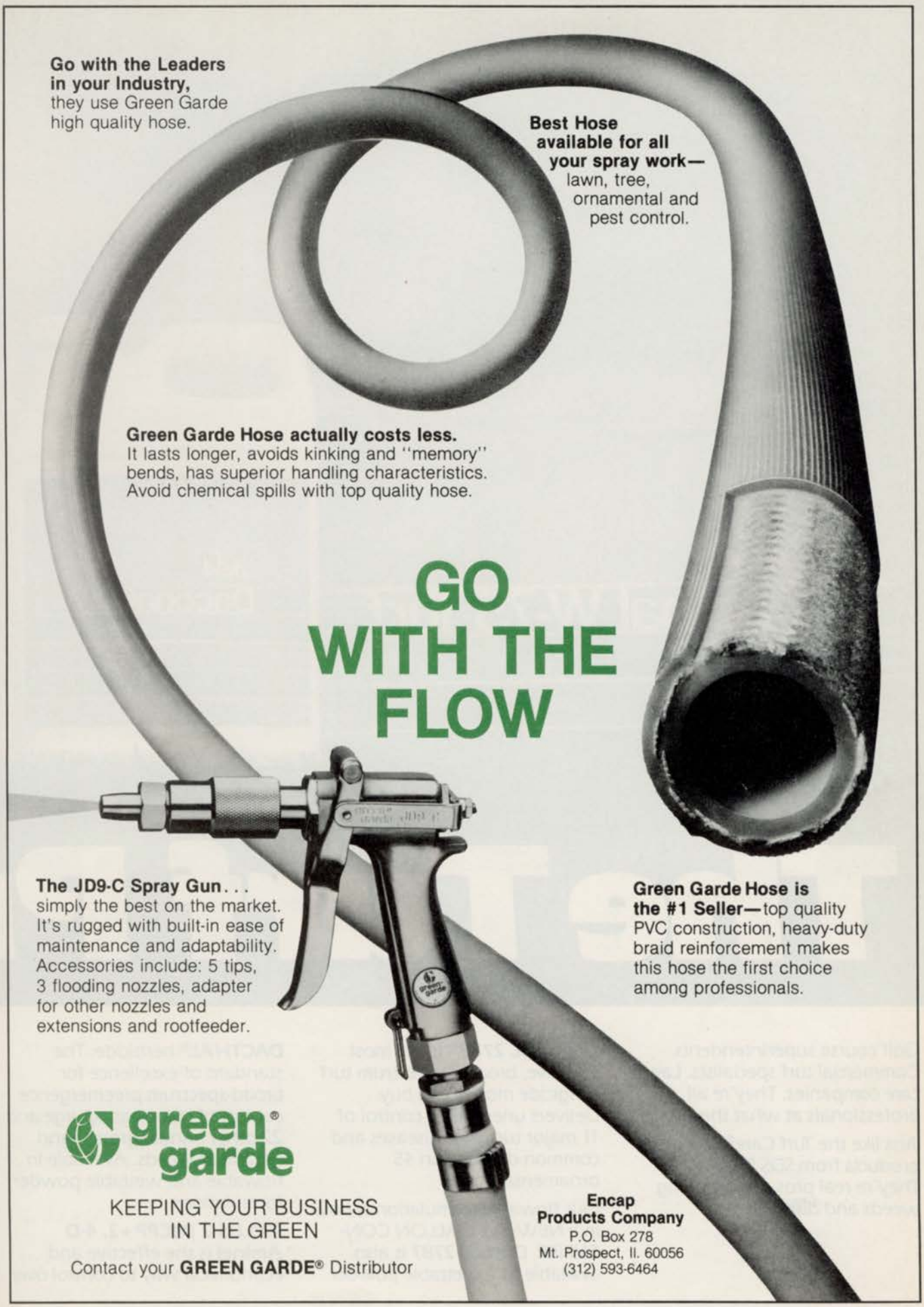
Dying tree alerts town to gas leaks

A dying 25-year-old shade tree alerted officials in the small town of Cinnaminson, N.J., to potentially dangerous natural gas leaks late this summer.

"We couldn't find anything organic wrong with the tree," says Fran Leusner, a 32-year veteran of the township public works department. "It didn't have an insect problem, so we had the gas lines checked out and found eight leaks in a small area."

Leusner tells WT&T he suspected natural gas after learning that the owners of the tree also reported losing two holly bushes and a neighbor complained of the death of part of a front lawn.

Leusner says dying grass and plants don't usually mean a gas leak, "but it's not the first time we've found something like this."


Go with the Leaders in your Industry, they use Green Garde high quality hose.
Best Hose available for all your spray work— lawn, tree, ornamental and pest control.
Green Garde Hose actually costs less. It lasts longer, avoids kinking and "memory" bends, has superior handling characteristics. Avoid chemical spills with top quality hose.
GO WITH THE FLOW
The JD9-C Spray Gun... simply the best on the market. It's rugged with built-in ease of maintenance and adaptability. Accessories include: 5 tips, 3 flooding nozzles, adapter for other nozzles and extensions and rootfeeder.
Green Garde Hose is the #1 Seller—top quality PVC construction, heavy-duty braid reinforcement makes this hose the first choice among professionals.
green garde®
KEEPING YOUR BUSINESS IN THE GREEN
Contact your GREEN GARDE® Distributor
Encap Products Company
P.O. Box 278
Mt. Prospect, Il. 60056
(312) 593-6464

Golf course superintendents. Commercial turf specialists. Lawn care companies. They're all professionals at what they do.

Just like the Turf Care® line of products from SDS Biotech. They're real pros at controlling weeds and diseases.

DACONIL 2787® is the most effective, broadest spectrum turf fungicide money can buy. Delivers unequalled control of 11 major turfgrass diseases and common diseases on 45 ornamentals.

Our flowable formulation is now in a NEW 2½ GALLON CONTAINER. Daconil 2787 is also available as a wettable powder.

DACTHAL® herbicide. The standard of excellence for broad-spectrum preemergence control of crabgrass, spurge and 22 other annual grasses and broadleaf weeds. Available in flowable and wettable powder formulations.

2 PLUS 2 (MCPP+2, 4-D Amine) is the effective and economical way to control over

20 pesky broadleaf weeds such as clover and dandelions.

DACAMINE® 4D herbicide combines the killing action of esters with the non-volatility of amines to knock out more than 70 weeds better than 2, 4-D.

DACONATE® 6. The proven postemergent herbicide that's highly effective against tough weeds like crabgrass. (Sold as Bueno® 6 in western states only).

So team up with the Turf Care line from SDS Biotech. They're professionals at maintaining healthier, more beautiful turf.

Always follow label directions carefully when using turf chemicals.

SDS Biotech®

Agricultural Chemicals Business
SDS Biotech Corporation
7528 Auburn Road, P.O. Box 348
Painesville, Ohio 44077

Circle No. 140 on Reader Inquiry Card

RESEARCH

Renovation underway at Ga. turf facility

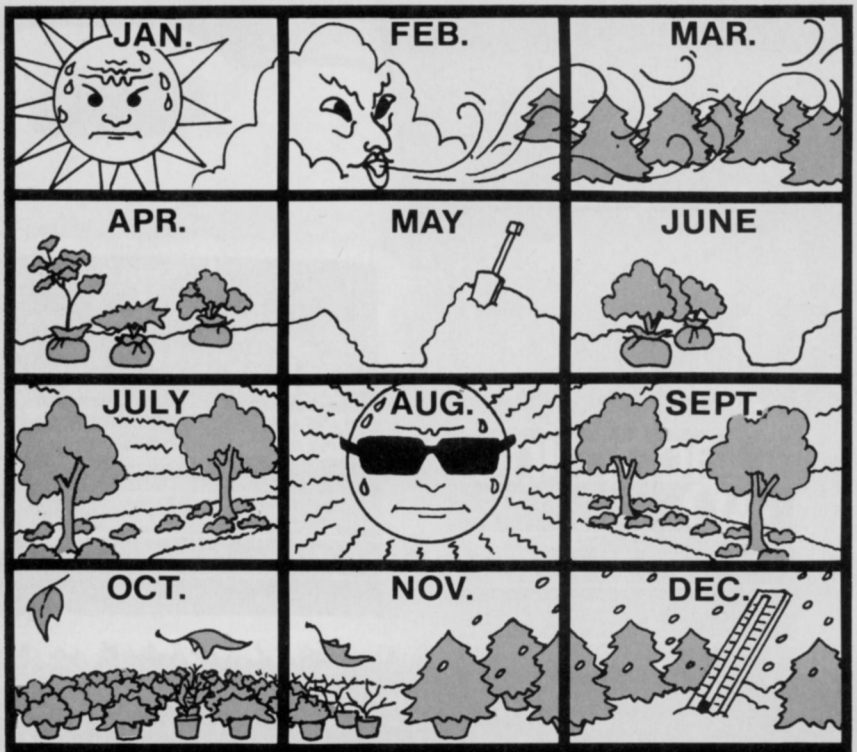
Change marks the turfgrass program at the Georgia Station in Griffin, Ga.

The aim? To make that turfgrass research facility one of the finest in the nation, reports Dr. Robert N. Carrow of the College of Agriculture at the University of Georgia.

Here is what's happening at Griffin:

- Turfgrass research plots of warm and cool season grass species (bermuda, zoysia, centipede, St. Augustine, bahia, tall fescue, and creeping bentgrass) are being consolidated into a 10-acre plot.
- New irrigation systems are being installed at the plot site, and also at a special plot of native soil and at a USGA bentgrass green. These last two areas will be used to study water use, drought stress, and irrigation scheduling.
- Creeping bentgrass research is underway on a 32,000-sq-ft golf green.
- A modern equipment storage and shop building is up.
- A stress physiology laboratory is being developed.
- Two new full-time technicians are being added to the turf program.

The annual turf field day, not held this year because of the work, will return August 12, 1986, Dr. Carrow reports.



Twelve Good Reasons To Use Folicote . . .

All Year Long.

Under stress conditions plants lose more life-giving moisture through the stomata in their leaves than can be absorbed by their roots. FOLICOTE reduces moisture loss by partially blocking stomata, without limiting actual photosynthesis.

FOLICOTE™ transpiration minimizer

- Increases transplant survival.
- Reduces moisture stress during transport.
- Protects against desiccation . . . winter and summer.
- Stays flexible, looks natural.

And FOLICOTE costs up to 50 percent less to apply than any other anti-desiccant or anti-transpirant on the market.

FOLICOTE is a wax emulsion that mixes easily with water and stays mixed. When used as directed, FOLICOTE has been proven in university trials to be effective and non-phytotoxic on a wide range of plants.

For free brochure and more information call TOLL FREE 800-257-7797, in N.J. 609-665-1130

Another water management tool from . . .
AQUATROLS CORPORATION OF AMERICA, INC.
1432 UNION AVE., PENNSAUKEN, NJ 08110

Circle No. 102 on Reader Inquiry Card

ASSOCIATION

Conn. nurserymen putting bloom in state

All 169 towns in Connecticut will be receiving six-to-eight-foot flowering crabapple trees this spring thanks to the Connecticut Nurserymen's Association (CNA).

Each town will be getting a tree to celebrate the state's 350th birthday. They will be planted the week of April 25 as an Arbor Day project involving local elementary school children. A grove of crabapple trees will also be planted at the capitol as part of the celebration.

The CNA is comprised of 383 wholesale, retail, and landscape nurserymen.

PEOPLE

Dr. Smiley leaves Cornell; heads west

After 12 years at Cornell University, Ithaca, N.Y., **Dr. Richard Smiley** accepted a position in Oregon. On Oct. 15, he became the superintendent of the **Columbia Basin Agricultural Research Center,** Pendleton, Ore. He has also reportedly accepted a courtesy appointment as professor of plant pathology at **Oregon State University.**

"I view the move as an opportunity for professional advancement," Dr. Smiley tells WEEDS TREES & TURF. A Californian, Dr. Smiley studied at Washington State University.

Other news from the Northwest has **Dr. Richard C. Skogley** being named "Man of the Year" by the Oregon Seed Trade Association. Dr. Skogley, in his 26th year at the University of Rhode Island, is the 11th person to receive the award.

Congratulations are also in order to **Jim Green,** Oregon State University Extension horticultural specialist. **The American Society for Horticultural Science** feted Green with its 1985 "Nursery Extension Award."

Green launched the "Ornamentals Northwest" newsletter series which began as an Oregon Extension publication but grew to include Washington, Idaho, and British Columbia.

Also in the Northwest, the 32nd annual meeting of the **Merion Bluegrass Association** saw the election of

Nothing is more effective and longer lasting than CHIPCO® RONSTAR® G herbicide.

When you're up against tough competitors like crabgrass and goosegrass, play to win. Protect your golf turf with CHIPCO RONSTAR G herbicide.

No other herbicide can match it for preemergent control.

No other herbicide can give you such excellent control for a whole season with just one early application.

No other herbicide is so tough on grassy weeds yet so safe on all major turf grasses — with no root pruning or inhibition. And it won't harm nearby trees, ornamentals or ground cover either.

In short, no other herbicide can match the winning form of CHIPCO RONSTAR G.

Don't lose your grip on crabgrass or goosegrass this season. Get your hands on CHIPCO RONSTAR G herbicide.

Rhône-Poulenc Inc., Agrochemical Division, Monmouth Junction, NJ 08852. RHÔNE POULENC

CHIPCO RONSTAR

Spread the word.

CHIPCO® and RONSTAR® are registered trademarks of Rhône-Poulenc Inc.

Circle No. 153 on Reader Inquiry Card

SHORTCUTS

REBUILDING GREENS..... The American Society of Golf Course Architects has reprinted "Evolution of the Modern Green" by immediate past president Dr. Michael Hurdzan, in answer to the demand for information on how to rebuild greens. The 24-page brochure is available from the organization for $5. To receive one, send a check or money order to ASGCA, 221 North La Salle St., Chicago, Ill., 60601.

MOVABLE DOCK..... Gary Thornton of Thornton Landscape Management has come up with an interesting concept for receiving nursery and landscape stock: a movable dock. Tractor-trailers making deliveries need only pull into the loading area and park without having to worry about backing into any

docks. The heavy steel dock is then put into place by a fork lift. When the goods are unloaded from the truck, they can then be transported via pallet, and when empty the dock can be returned to its storage area.

FREEBIE.....A free brochure that helps calculate the costs of mowing grass is available from 3M. It also tells you how 3M's Embark plant growth regulator can affect changes in your mowing budget, of course.

To receive your copy, send your name and address to Agricultural Products/3M, P.O. Box 33600, 3M Center, St. Paul, Minn., 55133-3600, or phone (800) 328-1300.

ARCHITECTS DIRECTORY..... The American Society of Golf Course Architects has published a new membership directory. Copies of the directory are available free of charge by writing the organization at 221 N. Lasalle St., Chicago, Ill., 60601.

NEW TURFGRASSES..... Finelawn I Turf Type Tall Fescue has been granted a U.S. Patent Variety Protection Certificate. It's a new-generation tall fescue with a lush green color and narrow tapering leaves that has been highly rated by the USDA's National Turfgrass Evaluation Program.

Also, Gator turf-type perennial ryegrass and Houndog turf-type tall fescue—popular North American turfgrasses—are taking a trip overseas. Both will be sold in Germany and France, according to J.L. Carnes of International Seeds, Halsey, Ore.

STMA CONFERENCE..... The Sports Turf Manager's Association (STMA) will hold its annual educational conference, meeting, and elections in San Francisco, Feb. 1-3, 1986. It will be held in conjunction with the 57th GCSAA Conference and Show.

the following directors: **Don Cornwall,** Fairfield, Wash.; **William Howell,** Imbler, Ore.; **Don Jacklin,** Post Falls, Id.; **Clifford Mattila,** Mercer Island, Wash.; and **Al Pohlschneider,** St. Paul, Ore.

Ralph Reid is president of the new **Oklahoma Professional Herbicide Applicators Association.** Reid, a custom applicator from Enid, says "usually it's misuse of the chemical, not the chemical itself, that causes any problems."

The 35-member association is already studying insurance, licensing, and state reciprocity laws. **Betty Mendl,** DuPont industrial weed control specialist, is credited with organizing the association.

This summer saw the formation of the **Nebraska Professional Lawn Care Association (NPLCA).** President is **Dale Amstutz,** vice president **John Skomal,** and secretary-treasurer **Richard Penn.**

NPLCA directors are: **Rich Mulder, Tery Anderson, Gary Carstens,** and **Tom Urbanek.**

For membership and information contact Executive Secretary **Don Ellerbe,** NPLCA, 209 W. Ninth St., Hastings, Neb. 68901. (402) 463-5691.

A jacaranda tree at the Disneyland Hotel bears the name of **Frank Conriquez.** This summer he was honored for the 30 years as head gardener at the hotel.

Bill Rose, president of Turf-Seed, Inc., Hubbard, Ore., announces the appointment of **Margaret Herbst,** New York, N.Y., as a public relations consultant for special projects.

Ike Thomas, Granbury, Tex., is 1985-86 president of the **American Sod Producers Association** (ASPA). **Al Gardner,** Broomfield, Colo., steps in as vice president and **Doug Morgan,** Wethersfield, Conn., secretary-treasurer.

Newly elected ASPA trustees are: **Ed Davis,** Okeechobee, Fla., and **Bob Goodrich,** Camarillo, Calif.

R. Douglas Cowan was elected president of **The Davey Tree Expert Company,** Kent, Ohio, late this summer. Cowan joined Davey Tree 11 years ago.

Phillip Whitney Yelverton joins **The Fertilizer Institute** as director, member services. He previously served as marketing analyst for USS AgriChemicals, Atlanta, Ga.

American Cyanamid promotes **Brenda S. Krause** to Fort Dodge district sales manager for crop protection chemicals in the Midwest region. **William L. Clark** takes a similar post as Syracuse district manager in the Eastern region. Both are nine-year veterans of Cyanamid.

The City That Works Works With Woods

There's a lot of grass to mow in the Windy City, and Chicago's Park District uses rugged Woods mowers to help them cover a lot of ground.

But Woods mowers aren't designed just for large areas. In fact, we make mowers that cut swaths from 3 1/2 feet all the way up to 20 feet. Plus, we offer more rearmount and undermount models than any other manufacturer of tractor-powered mowers. New tractors or old, domestic or imported, Woods has a mower to fit the tractor and the job.

Send for complete specifications on the dependable line of Woods mowers today.

for 34 years the name to remember for quality and performance

WOODS

Division of Hesston Corporation
Oregon, Illinois 61061

Circle No. 154 on Reader Inquiry Card

Golf car and utility vehicle manufacturers look to a bull market, even though they aren't exactly certain what turf managers really want.

by Ron Hall, associate editor **and Jerry Roche,** editor

The golf course market smiles. Manufacturers of golf cars and utility vehicles look with optimism to 1986, some beyond.

Witness the healthy construction of new golf courses, a reflection perhaps of a national economy that continues to climb from the doldrums of just a few years ago. With unemployment and interest rates at more favorable levels, the number of golfers taking to the links rises. Their expectations about the quality of play increase.

Longtime golf car manufacturer E-Z-Go's plunge into the utility vehicle market in 1985 highlights the confidence of domestic manufacturers. Other evidence is the new muscle OMC-Lincoln engineers into its 1985 line, making more powerful and versatile Cushman machines.

"We see the the market for turf vehicles continuing strong through 1986," says OMC-Lincoln marketing manager Frank McDonald.

Cushman vehicles, long the mainstay of the utility vehicle market, are now equipped with 22 hp engines, giving almost 1/4 more power than previous models. Reliability and longevity were prime concerns for the move to more muscle.

"Customers want water-cooled, low-maintenance vehicles that function like regular on-road vehicles," says Tony M. Nunes, marketing vice-president for SDS Motor Import, Oxnard, Calif. His firm offers the Japanese-manufactured Sanfu line.

'We see the the market for turf vehicles continuing strong through 1986.'
—McDonald

And, while foreign manufacturers continue to nip at the edges of the turf market, the big event in the turf vehicle industry in 1985 happened in Augusta, Ga.—home of the Masters and E-Z-Go.

This past year, E-Z-Go purchased the Pargo Industrial line of vehicles from Eagle Vehicles, Dallas, Tex.

Coupled with the introduction of its own new vehicles in February, E-Z-Go can now boast offerings in 19 different styles, everything from a one-seater to an 11-passenger model.

Management at Augusta headquarters spent much of this year weaving an effective sales network. With distributors in place in 1986, E-Z-Go—with its 18-hp GXT-7 model as its workhorse—promises to pursue the turf market enthusiastically.

"The market has grown quite a bit the last couple of years," notes Dave Johnson of E-Z-Go. "In the turf vehicle market, I see a swing toward smaller-capacity units because of cost, versatility and maneuverability."

Which brings up a philosophical question: do turf managers want one vehicle that can, with attachments, do a myriad of functions, or do they want more specialized vehicles?

Kent S. Hahn, general sales manager of Hahn, Inc., Evansville, Ind., says, "the golf course superintendent is looking for more specialized turf vehicles. With the cost of chemicals increasing, there is a demand for more accurate applicators of both liquid and dry to reduce chemical waste and misapplication."

OMC-Lincoln's McDonald agrees.

Club Car Circle No. 160 on Reader Inquiry Card

Melex Circle No. 161 on Reader Inquiry C

Yamaha Circle No. 162 on Reader Inquiry Card

Cushman Circle No. 163 on Reader Inquiry Card

Hahn Circle No. 164 on Reader Inquiry Card

Sanfu Circle No. 165 on Reader Inquiry Card

"Because more golf course superintendents are utilizing specialized attachments, we believe the 'system concept' will continue to grow. As their primary turf vehicles are increasingly dedicated to specific tasks, we find that they are relying more heavily on lower cost, all-purpose utility vehicles for administrative and runabout work."

It is in the "runabout" area that the relatively inexpensive work/play all-terrain vehicles (ATVs) are making their greatest impact. Even so, their use is not yet widespread in the day-to-day tasks actually related to turf care.

The golf car market is also experiencing a profitable year with the outlook better than ever, partly due to changing tax laws.

"We see some buyers who are buying capital goods—such as golf cars—due to the probable change in tax laws during 1986," notes Sam W. Mays, marketing vice-president for Club Car, Augusta, Ga. "Of course, this applies to for-profit clubs, so they can achieve favored treatment with the investment tax credits and accelerated depreciation."

Scott Pierce, president of American Continental, Wilmar, Minn., sees the same bull market as Mays.

"There's a lot of pent-up demand out there," he notes. "There's going to be quite a scramble for business, and next year will be an excellent one."

One other golf car manufacturer has experienced strong sales this year from buyers replacing entire fleets because of the strong economic conditions. "We expect this condition to continue at least over the near term," says Pierce. **WT&T**

With the edge Toro gives you, who knows what kind of jobs you could get.

Just think what a beautiful lawn can do for a customer's image.

And your business.

After all, that's what it all gets down to in the commercial cutting business. Your customers aren't concerned with your labor expenses, maintenance costs, equipment expenditures and the like. They're concerned about getting a good-looking lawn that's cut on schedule and at the competitive price you quoted them.

That's why professionals depend on Toro commercial equipment.

No matter what kind of grounds a prospective customer has, Toro has the product to help you get the job done right. And we're constantly fine-tuning and improving, based on your feedback, to help you provide the highest quality, professionally maintained lawns.

As the leader in the industry, Toro has earned a reputation for durability and hours of continual use in all conditions. We've designed every piece of equipment with comfort, ease-of-handling and productivity in mind. So you experience fewer breakdowns and get the job completed on schedule.

We know you have budgets too, so each piece of

equipment is designed to operate efficiently and cost effectively. We provide engine options to help you conserve fuel; as well as engine, frame and deck features that insure long life and reduced maintenance costs.

And with a nationwide network of Toro distributors and commercial dealers at your service, parts and service support is always within reach for delivery on the spot or as soon as 24 hours.*

The bottom line in any business is a happy customer. With Toro's proven, on-the-job reputation for durability, reliability, and economy of operation, you've got quite an edge over your competition. And with that kind of an edge, you won't have to worry about finding jobs, but rather how to service them all.

For more information about how Toro's complete line of commercial equipment can help your business grow, contact your Toro distributor or commercial dealer. Or send in the coupon.

*Customer eligibility for Toro's Unit Down and Direct Ship Programs, and responsibility for freight and handling options, subject to local distributor option. All 24-hour Unit Down parts delivery orders must be placed with Toro by 2:00 p.m., Minneapolis time.

© 1985 The Toro Company. Toro is a registered trademark of The Toro Company.

MAIL TO: D.L. Brown, Commercial Marketing Dept., The Toro Company 8111 Lyndale Avenue S., Minneapolis, MN 55420

☐ I'd like more information about Toro commercial equipment. Please have a distributor or commercial dealer contact me.

☐ I'd like to arrange for a demonstration of Toro commercial equipment.

Name_____

Title_____

Company_____

Address_____

City_____ State____ Zip____

Telephone (_____)_____

TORO.

The professionals that keep you cutting.

WTT 1185

Circle No. 146 on Reader Inquiry Card

LANDSCAPE MANAGEMENT

The money machine

Lawn care and landscape maintenance businesses begin to feel the nation's recovery from the recent economic recession, according to a survey by 'Lawn Care Industry' magazine.

by Jerry Roche, editor

Chemical lawn care revenues increased 40.2 percent from 1983 to 1984—a phenomenal rate—as the economy continued to recover from the recession of the early 1980s. Overall, according to LAWN CARE INDUSTRY magazine's 1985 "State of the Industry" report, the industry grew by 26.6 percent as landscape maintenance increased 11.1 percent from 1983 to 1984.

"From return on assets, this industry is a money machine," says John Kenney of Turf Doctor, a chemical lawn care company in Framingham, Mass. "Absolutely fabulous."

Spending by industry companies was also expected to increase drastically—22.5 percent—this year.

Chemical lawn care and landscape management companies predicted in the LCI survey that their expenditures on chemicals, equipment, and seed would be $415.5 million in 1985. That's an increase of 22.45 percent over 1984 expenditures.

John Kenney

Jerry Faulring

Growth areas

Biggest gains were expected to be in the areas of tree care equipment, spray tanks, and irrigation equipment. Many companies are diversifying into tree care, while proper irrigation is playing a bigger role in creating beautiful landscapes, especially in high-growth areas like Southern California.

Tree care equipment purchases were expected to almost triple to $8 million in 1985. Sales of spray tanks were predicted to double in sales to more than $18 million. Irrigation equipment was supposed to hit the $23 million mark, an increase of nearly 200 percent.

"There are some other interesting figures here," says Jerry Faulring of HydroLawn, Gaithersburg, Md. "It's interesting to note that granular fertilizer use is growing faster than liquid (13.5 percent to 8.6 percent). Pre-emergents should show a parallel relationship, but they're only up 4.6 percent. So people are becoming more selective in the use of pre-emergents.

"Insecticides (up 23.2 percent) are still not being used discriminately enough. A lot of seeding (up 53.9 percent), a lot of discrimination in post-emergents (down 4.6 percent), fungicides—a little more awareness (up 3.1 percent), and a lot more awareness of soil amendments (up 74.7 percent).

"I think that follows the trends real well," says Faulring.

Replacing fleets

It appears that many of the companies founded in the late 1970s are beginning to have to replace fleets, judging by predicted sales of spray tanks.

"The cost of money is favorable, compared to what it was two, three, or four years ago," notes Kenney. "Maybe it's expensive to replace equipment, but it's less expensive now, and if you wait the interest rates could go back up."

Number one complaint of customers, according to those responding to the LCI poll, is high cost. Other complaints run the gamut from poor weed control to improper scheduling to poor communication.

Nearly 68 percent of the respondents cited insurance costs as being a major business concern. Sixty-two percent said vehicle costs were a concern, while "liability costs," "government regulations," and "interest rates" were also cited by more than 50 percent.

Big numbers

Not surprisingly, the survey found that the vast majority of chemical lawn care by its readers was being conducted in the East North Central region of the nation (Ohio, Indiana, Illinois, Michigan, Wisconsin). Lawn care companies owned by LCI readers in those states grossed an average of $908,938 last year. The overall average for the East North Central region ($415,338) led the industry.

The Mountain region (Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada), surprisingly, led the nation in landscape maintenance revenues with a per-company average of $353,640.

New England was statistically the region of least lawn care/landscape maintenance with the average reader's business grossing just $83,050.

continued on page 28

A PREVIEW OF OUR COMPETITORS' 1989 MODELS.

You're looking at a new tractor that will still be new three or four years from now. That's about how long we estimate it will take our competitors to play catch-up.

In the meantime, our L2850 is loaded with forward thinking.

Under that streamlined hood is a 4-cylinder high torque-rise diesel engine. Most competitive tractors are 3-cylinder. It also has direct fuel injection, a feature no competitive model has.

Other advanced engineering ideas add to maneuverability. A mechanical shuttle transmission is one. Another is 4-wheel drive with our bevel gear system.

Of course, our Kubota L2850 works best with Kubota implements. They're perfectly matched to each other. For example, you can attach the mid-mount mower without removing the subframe or front loader. It's a neat trick.

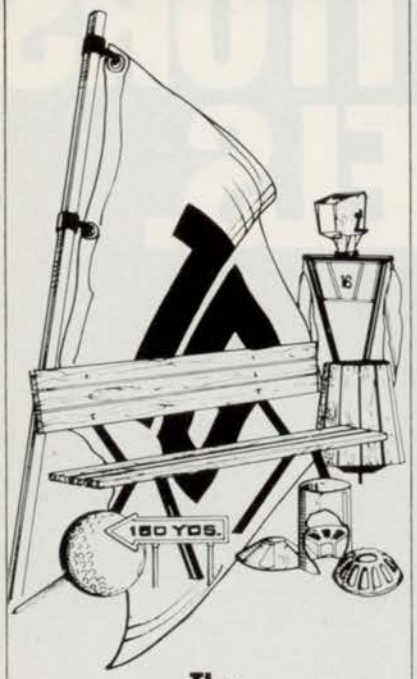
With all of these new L Series models (rated at 27, 23.5 and 21 PTO hp), Kubota hasn't just left the competition behind. We've left them behind the times.

KUBOTA
Nothing like it on earth.

© 1985 Kubota Tractor Corporation

Circle No. 122 on Reader Inquiry Card

FROM TEE TO GREEN



The
STANDARD
of
Excellence

Tee. Fairway. Green, or around the clubhouse. Whatever your needs for golf course accessories you'll find it at Standard Golf. Standard has the most complete line of accessories–all made with the top quality that Standard built its reputation on.

Get the finest for your course. Get the Standard of Excellence.

New, free 32-page full color Standard golf course accessories catalog. See your Standard Distributor or contact: **Standard Golf Company, 220 E. 4th St., Box 68, Cedar Falls, Iowa 50613 (319) 266-2638.**

STANDARD GOLF Pro-Line

Circle No. 143 on Reader Inquiry Card

PREDICTED EXPENDITURES (1985) FOR CHEMICAL LAWN CARE AND LANDSCAPE MANAGEMENT COMPANIES

	% Sample Purchasing	Average Per Purchaser	Projection To LCI Readership	% Change Since 1984
Chemicals, Supplies				
Granular Fertilizer	84.7	$9,755.70	$92.41 Million	+ 13.5
Pre-Emergence Herbicides	73.9	$5,259.18	$43.46 Million	+ 4.6
Liquid Fertilizer	32.9	$11,701.40	$43.05 Million	+ 8.6
Insecticides	75.0	$3,518.92	$29.51 Million	+ 23.2
Grass Seed	72.1	$3,102.86	$25.02 Million	+ 53.9
Post-Emergence Herbicides	73.7	$2,748.33	$22.65 Million	− 4.6
Fungicides	58.2	$1,704.73	$11.10 Million	+ 3.1
Soil Amendments	33.2	$2,563.57	$9.52 Million	+ 74.7
Plant Growth Regulators	16.6	$501.03	$0.93 Million	N/A
Equipment				
Tractors	19.7	$11,551.33	$25.46 Million	− 15.5
Irrigation Equipment	19.2	$10,902.63	$23.41 Million	+194.8
Spray Tanks	33.4	$4,901.04	$18.31 Million	+219.5
Riding Lawn Mowers	19.7	$7,518.00	$16.56 Million	+ 30.3
Walk-Behind Mowers	46.3	$2,665.86	$13.80 Million	− 17.1
Sprayers, Pumps, Etc.	52.1	$2,350.63	$13.70 Million	+ 27.8
Spreaders	47.4	$1,520.19	$8.06 Million	N/A
Tree Care Equipment	25.5	$2,888.06	$8.00 Million	+278.7
Aeration Equipment	22.1	$2,805.37	$6.93 Million	− 1.7
String Trimmers	41.3	$778.47	$3.60 Million	+ 11.8

1985 Projected Totals = $415.48 Million +22.45%

Source: LAWN CARE INDUSTRY MAGAZINE

LAWN CARE *from page 26*

Nationally, the average size of a chemical lawn care business is in the $350,000 range. Average size of a landscape management company is between $175,000 and $200,000. Overall, the average LCI reader's company grossed $250,982 with a pre-tax profit of 21.25 percent (more than $53,000).

Still growing

So 1984 exceeded last year's expectations. In LCI's 1983 survey, readers predicted that their businesses would grow to an average of $247,000, about $3,000 less than the final figure. And the growth trend will continue in 1985, poll respondents say.

They have predicted an industry average of 23.99 percent growth this year.

Diversification appears to be a growing trend within the industry. Of the 380 survey respondents, 50 said they are also involved in landscape installation and design. Twenty-two said they service trees, 19 said they are involved in landscape construction and 18 said they are involved in the sod business.

Snow removal, with 13 responses, was another popular sideline. **WT&T**

Joe, why is it important to have a fungicide that will work against a lot of different fungus diseases? "At any given time, conditions may be right for three or more different fungus diseases. And others may be dormant in your turf, waiting for conditions to change. You never really know what you'll be up against next."

What makes Fertilizer Plus Fungicide VIII so special? "It's a broad-spectrum fungicide—among the broadest on the market, in fact. It handles dollar spot, brown patch, leaf spot, red leaf spot, and pink snow mold. And it's a double-barreled weapon against disease: it works first on contact for quick action, then systemically for additional protection."

Sounds like that would be helpful to any turf manager. "Sure would. It makes things a little handier—you don't have to pick and choose from among several products for the best treatment."

What about follow-up outbreaks of those diseases? "You don't have to be as concerned about future disease problems, because Fertilizer Plus Fungicide VIII does more than just cure. It's also effective as a preventative."

How often should you apply it? "Every 10 days to 3 weeks, depending on the severity of the disease pressure."

Won't that be too much nitrogen? "No. At the recommended application rates, you'd be using a modest amount of nitrogen consistent with the development of quality greens."

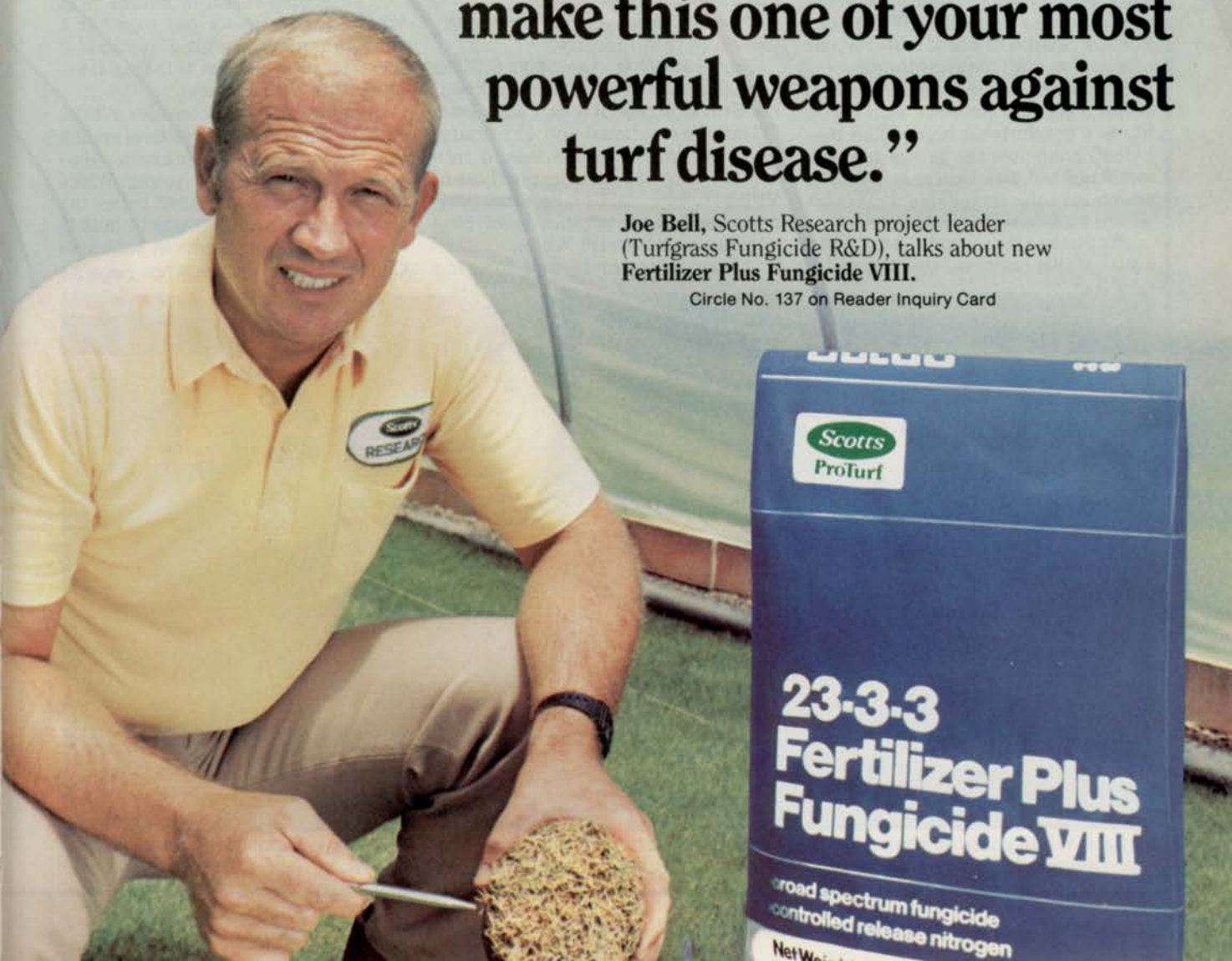
How does the price compare with other alternatives? "The pricing is very competitive. Considering that the alternative is normally a combination of products—which may even call for different methods of application—I think a lot of turf managers will end up saving money with this fungicide combination."

For more information about Fertilizer Plus Fungicide VIII, call your ProTurf® Tech Rep. Or call Scotts® direct at 800-543-0006.

"Economy and broad-spectrum action will make this one of your most powerful weapons against turf disease."

Joe Bell, Scotts Research project leader (Turfgrass Fungicide R&D), talks about new **Fertilizer Plus Fungicide VIII.**

Circle No. 137 on Reader Inquiry Card



LANDSCAPE MANAGEMENT

ServiceMaster goes 'Green'

Chicago's Richard White built Village Green from the ground up. Now he and his former company are part of an $800 million service company that is building a nationwide network of 'ma and pa' lawn care operations.

by Ron Hall, associate editor

John Willis once taught flying at Chicago's Midway Airport. He traded that for the drudgery of cleaning homes and offices in Elgin and Schaumburg.

He dug hard cash out of his pocket and presented it to a company called ServiceMaster for the *privilege*.

Now his blue eyes dance as he describes the $400,000 cleaning and disaster restoration business he owns and manages from his 10-year-old home, evidence of a profitable 14-year association with ServiceMaster.

This brick house, tucked in a corner of a wildlife preserve near Elgin, Ill., is a comfortable home. The basketball hoop over the garage suggests anything but the business beehive which is in the remodeled, basement where employees man the phones.

Opportunity comes knocking again, Willis believes. He digs again. This time for lawn care.

The key again, ServiceMaster.

Says Willis, "I want to get in on the ground level of ServiceMaster Lawn Care. I enjoy the pioneering part of it more than anything. Who knows? Maybe I'll put all my efforts in one direction—lawn care."

You in lawn care ought to know more about ServiceMaster.

It knows about you and the healthy growth of your industry.

ServiceMaster, the $800 million service giant headquartered in Downers Grove, Ill. about a half hour from O'Hare International and 45 minutes from the Willis' home, eased into lawn care in 1985 with the purchase of Village Green, the Chicago-area business headed by veteran lawn care businessman Richard White.

"ServiceMaster looked for nine months, 12 months trying to find a good fit before it bought Village Green," White recalls. "I think our company did business the way ServiceMaster likes to do business."

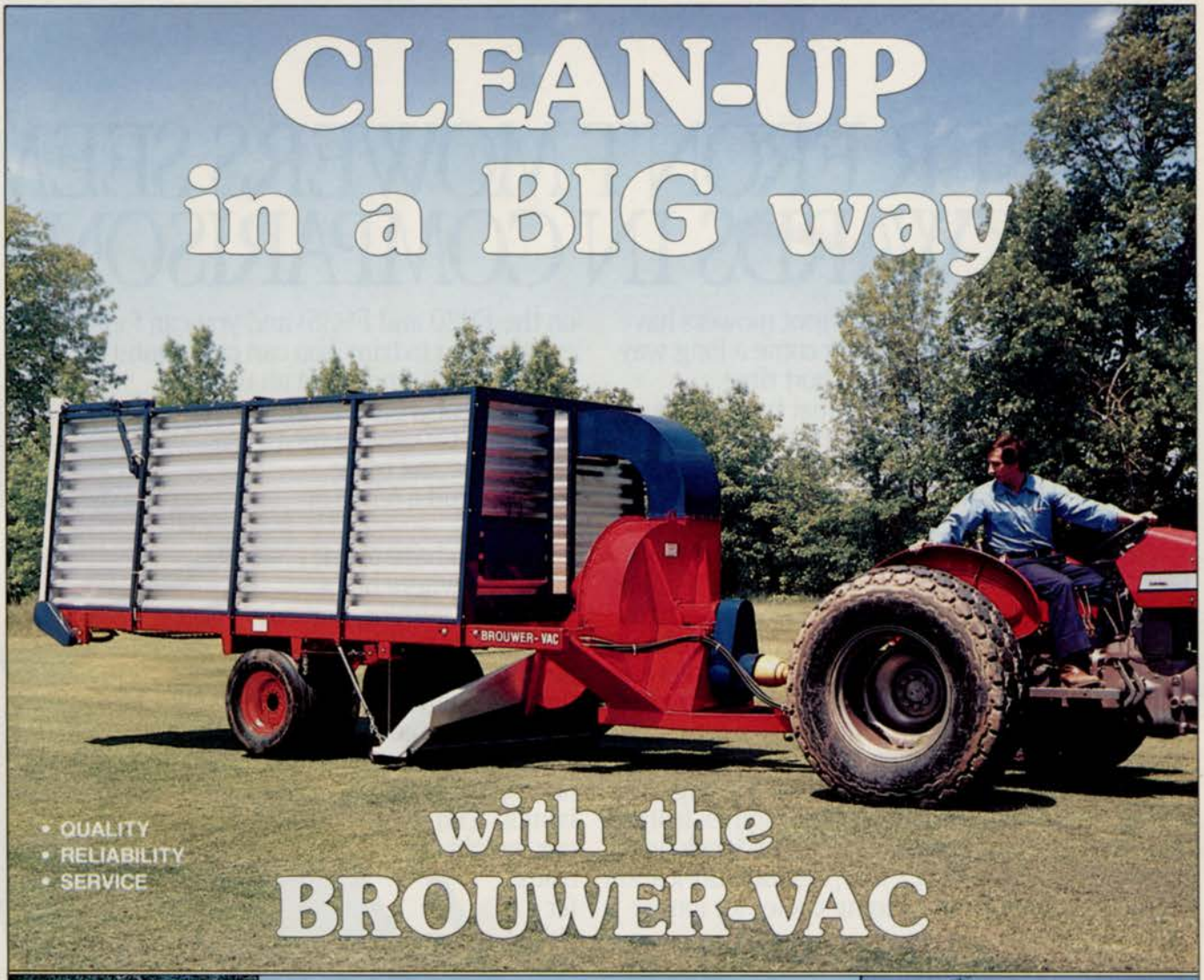
White believes "they wanted a company to use as a model for lawn care. The management was in place to do lawn care."

The management, of course, was White. He'd already put together a comprehensive training manual. It was no secret he was thinking franchise with Village Green.

Industry insiders consider White, still trim and on the sunny side of middle age, one of lawn care's pioneers. The idea is *that* young. White treated his first lawn in 1962, before the industry had a name. He was 16. In 1973 he started Village Green in suburban Chicago. *continued on page 34*

Richard White poses *in front of ServiceMaster headquarters in Downers Grove, Ill. White, vice-president of the Lawn Care Division, is former owner of suburban Chicago's Village Green.*

CLEAN-UP in a BIG way



• QUALITY
• RELIABILITY
• SERVICE

with the BROUWER-VAC

Also picks up debris & litter

OUTSTANDING FEATURES

- 335 cu. ft. load capacity
- Dual flotation wheels – low compaction
- All hydraulic operation – finger tip controls
- Extensive use of aluminum
- Wide, floating suction head - up to 120 in.
- 35 - 45 H.P. tractor requirement

Self unloading
with Hydraulic Door

The new Brouwer-Vac can be the answer to your clean-up problems. Designed to easily and economically pick up thatch from verti-cutting, grass clippings on sod farms, parks and golf courses. It has also proven very efficient when used to pick up leaves, twigs, paper, food containers and other such trash and litter that require cleaning up from airports, sports stadiums and highway shoulders. For these and other applications, the Brouwer-Vac will provide a fast, efficient, reliable and economical way for you to "clean-up BIG".

BROUWER
TURF EQUIPMENT LIMITED

7320 Haggerty Rd./Canton, MI. 48187 Telephone (313) 459-3700
Woodbine Avenue/Keswick, Ontario, Canada L4P 3E9 Telex 065-24161 Telephone: (416) 476-4311

Circle No. 103 on Reader Inquiry Card

OTHER FRONT MOWERS SEEM BACKWARDS IN COMPARISON.

Our front mowers have really come a long way in a short time.

Just two years ago our first series rolled off the line, and this year we're back with a full line of sophisticated machines. We have a new package of features (some exclusive, others simply top-of-the-line) that put our front mowers way ahead of the other guys.

For starters, this year in addition to our gas-powered models, we offer two liquid-cooled diesel models, the 17-hp F915 and the larger 22-hp F935. These field-proven engines feature heavy duty design, especially in the block and crankshaft areas. Plus a full-pressure lubrication system to keep them running cooler for longer engine life.

You'll be running a lot cooler, too. Because features like hydrostatic transmission, standard power steering, and a new dual-pedal foot control, all go a long way to make this probably the easiest front mower there is to drive.

Combine those features with our new 76-inch wide swept spindle mowing deck (available on the F930 and F935) and you can forget about ever having to trim. You can cut around any tree or shrub, and leave an uncut circle of grass only 14 inches in diameter. Or use the turning brakes and mow right around a fence or lamppost.

If you have to cut grass anywhere but a totally flat surface, and who doesn't, our front mowers have two exclusive features that are tough to go without. Differential lock will improve traction on slopes or ditch banks. And our weight transfer valve will keep

you cutting through long grass or in slippery conditions.

Of course, the best feature that we have to offer is our John Deere name. Which has come to mean quality and dependability. We stand behind our front mowers with a two-year limited warranty. And, in the unlikely event that anything should go wrong, you can go back to your local John Deere dealer. (Which shouldn't take long. We have so many commercial dealers across the country that there's probably one very close to you.) If he doesn't have the part in stock, he'll get it for you in hours—not weeks—thanks to our unique computerized FLASH™ parts system. Because he knows that if your front mower isn't working, neither are you.

While space here is limited, the list of terrific features on our front mowers isn't. To find out more, just write John Deere, Dept. 75, Moline, Illinois 61265. Or call 800-447-9126 toll free (800-322-6796 in Illinois) for the name of the dealer nearest you. If you're in the market for a front mower, we challenge you to check out the other guys, and then look at us. We'll only look that much better in comparison.

JOHN DEERE

Nothing Runs Like a Deere®

Circle No. 109 on Reader Inquiry Card

Grass is his livelihood. When he walks the grounds at corporate headquarters, a pancake of greensward big enough for three football fields, he eyeballs the turf like an old friend at a high school reunion. He knows this particular turf.

Not long ago, but before ServiceMaster made its move into lawn care, White convinced management to mow that grass more often. This erased bagging of grass clippings. It gave workers 25 percent more time for other jobs. The grass looked better, too.

White doesn't walk this lawn often now. He's vice president of the Lawn Care Division of ServiceMaster. He's a Heinz-57 blend: administrator, teacher, troubleshooter. His office is on the second floor of the Downers Grove building.

Good vibes

His office bustles. Bright. Cheerful. It, like the others, displays a small plaque with these four maxims: *"To honor God in all we do. To help other people develop. To pursue excellence. To grow profitably."*

Business-watchers claim ServiceMaster pursues the fourth of these with particular zeal.

Fortune magazine in its June 11, 1984 issue described ServiceMaster as the nation's "most profitable" large service company with an astounding 30 percent return for its shareholders from 1974 to 1983.

It reaps these rewards by convincing and helping people build profitable "in-home" businesses: by granting franchises and training people to do jobs most people (and businesses) don't want to do for themselves.

Carpet and upholstery cleaning is one service often associated with the increasingly evident green-and-yellow ServiceMaster vans.

Company founder, the late Marion E. Wade, a hard-working Baptist not a bit bashful about mixing Christianity with business, started this way 35 years ago.

In 1962, ServiceMaster expanded its horizons, offering what it describes as "housekeeping management." And in the 1970s, business mushroomed as it spread into the health care industry.

Today ServiceMaster contracts with more than 1,000 hospitals, and provides management for everything from cleaning and laundry to the food that is prepared in hospital cafeterias. The locations of franchise-holders dot a huge map on a lobby wall.

ServiceMaster vans should become more common *to lawn care customers. John Willis (left) and employee Ron Wizieck at Willis' home in Elgin, Ill.*

Training school

ServiceMaster nurtures its newest baby, lawn care, with a familiar formula: by licensing "ma and pa" businesses, providing the support of a respected and nationally-known business name, and giving licensees week-long training at its "service academy" located fittingly in a convent in Wheaton, Ill.

"Everything is controlled at these academies," says White, who teaches agronomics to hopeful LCOs. Others instruct subjects like insurance, bookkeeping—skills needed to provide a service, to turn a profit. "These people (licensees) don't go out for dinner or anything. We just don't allow for any lost time. Besides, they have money invested in this."

This September, ServiceMaster graduated its second class of 16 hopeful lawn care businessmen. Next summer there will be another crop. In the fall of 1986, another.

"When they leave, we want them ready to go into business," White says. "After they leave we follow them. Our function is to assist these people to become successful."

All, like flight-instructor-turned-businessman Willis, a member of the first training class this past April, pay a $10,500 license fee ($6,000 down) to become an LCO. Startup costs, including van and materials, eventually come to $18,000.

Franchise owners also purchase their supplies via an arrangement with ServiceMaster and return 8 percent of their revenues to the company.

Although ServiceMaster promotes the "ma and pa" operation—the one-person, one-van business—don't let that mislead you.

Says White: "There really is no limitation. Sure, we think a one-man operation can be successful and some people will probably be happy with that kind of business, but they don't have to be."

Many of that first graduating class of LCOs, like Willis, already operate successful ServiceMaster cleaning businesses. Some, again like Willis, are distributors in the ServiceMaster cleaning chain. They provide the licensees (Willis has 20) with supplies and support.

These first training academies could provide the management link, the distributors, for ServiceMaster's nationwide lawn care network.

Willis sees opportunity here while he gauges the progress of his infant lawn care firm. He should reach 200 customers by year's end, hopefully 400 next season.

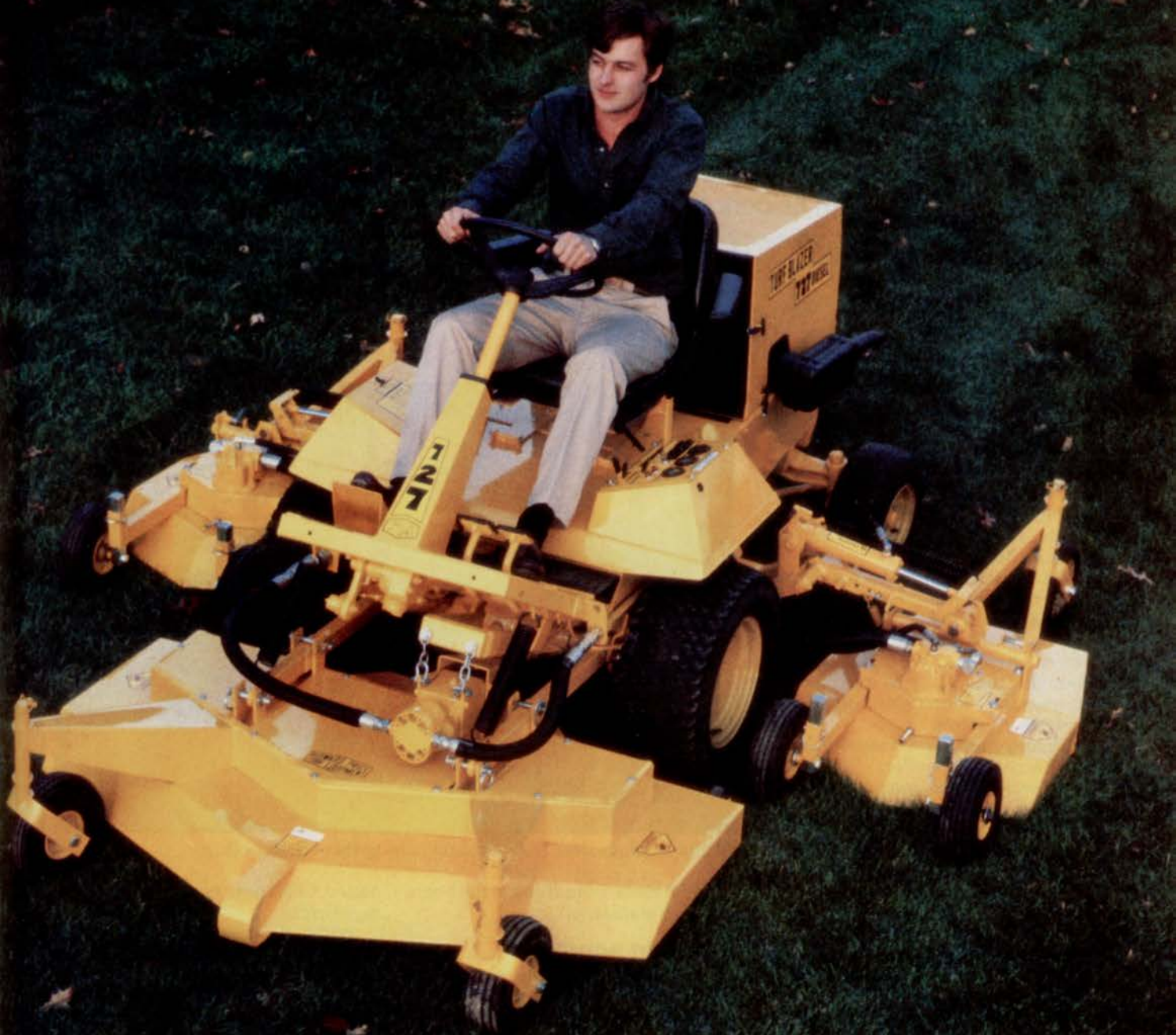
"These are minimum projections," he says. "Actually, I hope—and I think—we can do much better. I'm a builder. I'm enjoying the pioneering spirit of this."

How about ServiceMaster? How big does it want to become in the lawn care industry?

Says White: "Let's just say I decline comment. Everytime somebody says 'we're going to be as big as somebody else,' they flop." **WT&T**

THE PRODUCTION MACHINE

"HIGH CAPACITY, ECONOMICAL, HIGH-FLOATATION"



TURF BLAZER 727 - 104

That's how this machine has been designed! The mammoth 104" appetite affords you 31% higher capacity than a standard 72" unit. With a 60" mower out front and two hydraulically operated wings, we have eliminated the application of long, troublesome belts and assured you of picture perfect floatation over berms and undulations.

Add to this a field tested, 3-cyclinder water-cooled, 27 HP diesel engine in conjunction with hydrostatic transmission and you have a machine which will maximize your return on cost of acre cut!

Contact your local HOWARD PRICE distributor for a demonstration on your turf.

Manufactured by HOWARD PRICE TURF EQUIPMENT

18155 Edison Avenue
Chesterfield, Mo. 63017
Circle No. 275 on Reader Inquiry Card

LANDSCAPE MANAGEMENT

Growing in all directions

A Kalamazoo, Mich., company blends a lawn care operation with its pest control operation. And it's working. That versality has lifted gross revenues to $2 million.

by Ken Kuhajda, managing editor

When ChemLawn offers you the chance to become a franchisee you take it, right?

Today perhaps you would but, in the early 1970's, Linden Griffin said "no" to the giant's offer. His company, Griffin Pest Control of Kalamazoo, Mich., was strictly into pest and termite control.

At the time, he didn't catch the natural connection—the use of pesticides in both fields.

"It seemed kind of strange at the time," he recalls of the offer. "I thought, 'boy, they're emphasizing chemicals.' I didn't think that was a positive PR move."

In retrospect, Griffin says he should have accepted the offer.

"It was probably two or three years later before I really even considered getting into lawn care," he says. "At the time of their offer, I was really into making pest control a success. I still owed my parents money from my purchase of the business (1973)—that's why I was reluctant."

Within a short period, Griffin solidified the pest control operation and realized the natural relationship the field has to lawn care.

Three years later he began his own lawn care division with the help of a capable employee, Wayne Bro. "He is a young man who we thought could handle that kind of challenge," says Griffin.

With Bro providing guidance, Griffin Lawn Care traveled a bumpy road to profitability.

"We got 220 customers (from the pest control client list) and decided we'd better learn what we're doing," he says.

Griffin Lawn Care progressed from nursery school to graduate school in a period of months. Branch offices are now located in Battle Creek and Grand Rapids, in addition to the home base in Kalamazoo.

Griffin headquarters *in Kalamazoo, one of three Griffin offices.*

The right approach

"We'll do $500,000 this year," says Griffin of the lawn care division.

That figure climbed sporadically as lawn care in his area has experienced "years where growth was flat."

Griffin will tell you he's made mistakes along the way.

He did a lot of television and radio advertising in 1982.

"It was a disaster," he says. "I think TV and radio advertising are impulse purchases. It didn't help us grow at all."

Instead, Griffin prefers phone solicitation. "We've been more successful with our phone solicitation program than with any other. That's the most cost-effective way of reaching the customer," he says.

Barely two years old, the program netted 1,629 new customers in 1985, says Griffin.

With a week to go in the latest 10-week sales period, phone solicitation has recorded a gross intake of $261,301, says Griffin, pointing to a sales chart in the corner of his office.

"Any lawn care company loses 20 to 30 percent of its customers each year," he says. Even when you consider that and other loss factors, he says, phone solicitation has been a boon for his company.

"We sold $261,000 to get $130,000," he says, figuring losses with gains. "That's not bad considering (hired lawn care) is discretionary income for a lot of people."

Room for growth

Perhaps most encouraging for Griffin is the potential for growth. Three Griffin offices lie in markets totalling a million people. That's a lot of lawns.

Fine Fescue for Sure

Maintaining a fairway can be a real headache. Fine fescues give you less to worry about...

Keeping your course looking great and your budget balanced can be a real headache. Oregon grown fine fescues can make your job just a bit easier. When used on tees and fairways, fine fescues offer shade tolerance with low fertilizer and water requirements. Fine fescues mix well with ryegrass and bluegrass without getting pushy, and they have a tight, upright growth habit. Oregon fine fescues germinate and perform better than imported varieties.

Where do you *find* fine fescues? On tees, fairways, roughs, parks, home lawns, industrial campuses and anywhere a fine textured, shade tolerant turf is desired.

Where do you *get* fine fescue? Ask your distributor for *Oregon grown* fine fescue *for sure!*

For a series of eight tech sheets on Oregon grown Chewings and creeping red fescues, call or write

OREGON FINE FESCUE COMMISSION

2140 Turner Road SE
Salem, OR 97302
503/585-1157

Circle No. 138 on Reader Inquiry Card

Linden Griffin, *owner of Griffin Lawn Care and Pest Control, Kalamazoo, Mich.*

Grand Rapids, a market Griffin entered just five years ago, has a population of 500,000. It offers the best potential of the three because of the numbers.

In Kalamazoo, Griffin has reached a "saturation point," but remains a stronghold in the industry.

Battle Creek, with just 125,000 people, has brought in steady income but lacks the numbers to become a windfall area.

A state unemployment rate hovering around 10 percent doesn't help matters. "In Michigan, we haven't been under a 10 percent unemployment rate in the last decade," says Griffin. "In Michigan, you have to work hard to make your business grow."

Another factor related to Griffin's bottom line is the cold southwestern Michigan winter. His lawn care employees are sent onto the streets with their snow plows, sometimes working up to 14-hour days.

Snow removal doesn't generate much income, says Griffin, and takes a quick toll on equipment and personnel. He doesn't recommend it as a winter alternative.

The days of ice and snow can seriously damage a cyclical business, he says, adding, that the company's bottom line "looks like a giant roller coaster," over a year.

He's made an attempt to remedy winter's cash flow woes by implementing a pre-pay (or pre-bill) system for lawn care customers. It sometimes aids sagging cash flow. "$40,000 in cash is helpful in January and February," he says.

The total package

Among the three Griffin divisions, gross revenues of $2 million are projected for 1985.

In Linden Griffin's first year at the helm (1973), revenues totalled $180,000 (without lawn care, began in 1977).

Griffin almost missed out on million dollar gross revenue figures.

He had no intention of following his parents into the bug business.

His parents, Linden Sr. and Irene, founded Griffin Pest Control in 1929 and their son worked on-and-off for 20 years beginning in 1954.

Linden Sr. became ill in the early '70s and reached an agreement with his son for the purchase of the business.

After a few months as president, Linden Jr. realized he had underestimated his parents.

"When I graduated from college (Western Michigan University in Kalamazoo), I felt I could do a better job running the business," he says. "After a year-and-a-half, my parents became a lot smarter."

Pest control was then and is today the cornerstone of the business. It accounts for 60 percent of gross revenues, while lawn care has reached 25 percent in just eight years. Termite control, always a small part of the operation, accounts for 15 percent.

In five years, he says, the company "may be out of the termite business."

Pest control continues to grow though not at the pace set by lawn care. "Lawn care has an excellent growth potential because it's in its infancy. It has more growth potential for us than pest control," says Griffin.

He predicts lawn care will provide 40 percent of the company's revenues in five years.

Currently, the company is carrying 3,000 lawn care customers.

Pre-notification

Griffin is concerned about Michigan's notification question, requiring prior notification of the use of petro-sensitive chemicals to any sensitive person within a 2,000-foot radius.

In Michigan, Senate Bill 65 (pre-notification) is pending and Griffin, as local governmental affairs representative for the Michigan Pest Control Association and Professional Lawn Care Association of America, is lobbying for its defeat.

"I think states should have primacy over the use of pesticides," he says, agreeing with the recent Wauconda (Ill.) decision.

With a nod of his head Linden Griffin admits he enjoys speaking to gatherings of his peers. He sometimes practices for an hour, achieving just the right voice inflection or gesture.

It's the same care he puts into running his growing business. **WT&T**

TURF VAC®

Only sweeper for both turf and pavement. Grass, glass and trash ... wet or dry. Sweeping widths from 4 to 10 ft. Self-propelled and tow-type, both with ground dump and power lift dump.

Riding Model 80

Model FM-5 with hand intake hose

SANDANCER®

Versatile multi-purpose work vehicle. Hill-climbing 18 h.p. gas engine with a unique power train that eliminates stripped gears and burned-out clutches. Three models and a wide selection of options allow you to build a SANDANCER to match *your* work needs.

3 or 4 wheel models

Write for brochures and distributor in your area.

TURF VAC CORPORATION
P.O. Box 90129
Long Beach, CA 90809
(213) 426-9376

Circle No. 149 on Reader Inquiry Card

The Penn Pals are 'Tried and True'

Tournament croquet exhibition at Pure Seed Testing Research Center, Hubbard, OR

All work and no play make research a dull duty.

Just as time, patience, recording and recommendations are part of the development of our superior creeping bentgrasses, actual field testing is a big part of assuring the user a quality product.

The performance of Penncross and Penneagle on putting greens is academic. They are the standards used to judge any other surface. The use of Penneagle and Pennway creeping bentgrass blend on tees and fairways has proven to be an effective way of crowding out Poa annua.

Now, our "PENN PALS" are finding their way onto bowling greens, tennis and croquet courts as well as other sports turf uses. As leaders in the sports greens business, the "PENN PALS" have to "stay on top of it," so to speak. By testing our products under a myriad of conditions, we can proudly say "We've *TRIED* it . . . and you can't find a *TRUEr* surface for whatever your lawn sport."

Warren Bidwell will talk to your superintendents' group about "The Penn Pals" on your course.

Call or write TEE-2-GREEN CORP. for details.

PENN PALS . . . the DePENNdables from TEE-2-GREEN

Penncross and Penneagle's Oregon certified blue tags qualify for cash awards to qualifying turf organizations for turf research. Call our toll-free number for details.

Marketed by **TEE-2-GREEN Corp.,** PO Box 250 Hubbard, OR 97032 1-**800-547-0255** TWX **510-590-0957**

Circle No. 144 on Reader Inquiry Card

D 4157
LAWNCARE
LAWNCARE
LAWNCARE
574-207
BUS. LIC. NO.2

You didn't get where you are in the lawn care business using anything but the best.

You sell service. Pure and simple.

So if your customers complain about lingering, hard-to-control lawn pests, you go back and re-treat. Which takes time. Expensive peak season time.

That's when quality pesticide formulations prove their real value.

At Union Carbide, our insect and weed control products are designed to keep turf healthy, pest free and looking great.

And that, of course, is what your customers really pay for.

Realistic, dependable insect control

SEVIN® brand SL carbaryl insecticide is designed for the convenience of turf professionals. It's a water-based flowable that's easy to handle, mix and apply.

SEVIN® brand SL carbaryl liquid effectively controls over 25 common turf insects, including sod webworms, white grubs, billbugs, chinch bugs, even ants, ticks and fleas.

You and your customers also get peace of mind from knowing that carbaryl is used for insect control on pets, poultry and even some game birds.

So you worry less. And that's important.

The first name in phenoxys

Our researchers developed the phenoxy herbicide chemistry turf professionals have depended on for nearly 40 years.

And, with formulations like WEEDONE® brand DPC broadleaf herbicide, we can help make turf weeds the least of your worries.

WEEDONE® brand DPC is a powerful combination of 2, 4-D and dichlorprop in one convenient herbicide with the performance of more expensive, three-way mixes. So you get effective control for even hard-to-kill species such as spurge, chickweed, oxalis and ground ivy.

In fact, WEEDONE® brand DPC could be the only herbicide many lawn care operators will ever need.

Made for turf

Ask your chemical supplier about SEVIN® brand SL and WEEDONE® brand DPC.

When it comes to your insect and weed control turf chemicals, why choose anything but the best?

From the turf care group at Union Carbide

Union Carbide Agricultural Products Company, Inc. Box 12014 T.W. Alexander Drive, Research Triangle Park, N.C. 27709

SEVIN® is a registered trademark of Union Carbide Corporation. WEEDONE® is a registered trademark of Union Carbide Agricultural Products Co., Inc.

As with any insecticide or herbicide, always read and follow label instructions. ©1984 Union Carbide Agricultural Products Company, Inc.

Circle No. 150 on Reader Inquiry Card

LANDSCAPE MANAGEMENT

Growing up in an adolescent market

Trendsetting Southern California lags in lawn care.
A Riverside firm looked to the Midwest to tap this potentially lucrative market

by Ken Kuhajda, managing editor

This narrow strip of turf *in front of Bourbonnais' Riverside office is a portion of the commercial real estate he maintains.*

While Midwest-based lawn care companies like ChemLawn perfected their treatments in the late '70s and early '80s, Larry Bourbonnais didn't know there was such a thing as liquid lawn care.

His Riverside, Calif.-based firm, the Larry Bourbonnais Company, had specialized in professional grounds management since 1973; but he was, in his terms, one of a horde of Californians who call themselves "gardeners."

Liquid fertilization? He'd never heard of it. Not until 1980.

While attending a Southern California Turfgrass show, he strolled to a booth featuring liquid fertilizer.

He'd stumbled on something that would forever change his business.

He went from shorts and no shirts to three-piece suits in less than four years (although he admits he's still a casual dresser).

"I asked the guy 'what is this?' and he said that liquid spraying was a big deal in the East."

The 37-year-old Bourbonnais was miffed. "I'd never heard of it. I'd been in business for almost eight years. Well, the guy said he'd ask a consultant in Chicago to get hold of me," he says.

Bourbonnais flew to Chicago, a first for the California boy, to meet with the consultant, Jim Mello, owner of Nice'N'Green lawn care service. He saw his first spray truck. Impressed yet undecided, Bourbonnais prayed for guidance and was answered.

Spray Green

With Mello's assistance, Spray Green was born in the spring of 1981. Bourbonnais took the Midwest route into

CUT A BIG CHUNK OUT OF YOUR MOWING AND TRIMMING.

LIMIT® can cut your tough

You know them: all those places where cutting grass is a big headache. And a big time-taker. Hillsides. Roadsides. Wet spots. Bunkers. And pesky trim spots like plantings, monuments and fences.

The places where you wish the grass would grow nice and slow. The places where, sure as grass grows, you need LIMIT® turf regulator.

LIMIT SLOWS GRASS GROWTH FOR UP TO SIX WEEKS.

Monsanto, the company that brought you Roundup® herbicide, now brings you another important turf management tool. LIMIT turf regulator is the guaranteed way to slow the growth of bluegrass, fescue, and ryegrass for up to six weeks.

LIMIT BUYS YOU TIME IN YOUR BUSIEST SEASON.

Five years of testing by Monsanto and turf managers have proven it: LIMIT can reduce *by half* the time you spend trimming and mowing treated areas.

LIMIT buys you time. Time your crews can use for priority projects, especially in the spring.

THE ONLY TURF REGULATOR TO WORK THROUGH THE ROOTS.

Unlike other turf regulators, LIMIT works through the roots. Not through the foliage.

The result? You can spray LIMIT earlier. Only LIMIT works before green-up, as well as after. It fits your schedule. Not the other way around.

ALL KINDS OF TURF MANAGERS GIVE LIMIT HIGH MARKS:

FRED TRAUT
Grounds Supervisor,
Sheppard and Enoch Pratt Hospital,
Baltimore, MD

"...on real steep, hard-to-mow slopes, LIMIT reduced equipment usage, the hazard to my employees...and my labor of mowing."

JOE KOSOGLOV
Golf Course Superintendent,
Hillcrest Country Club,
Indianapolis, IN

"We use LIMIT in areas that require a lot of handwork. I'd recommend LIMIT to any golf course superintendent spending too many hours in areas he'd rather not be."

est cutting jobs by half.

THE ONLY TURF REGULATOR THAT DOESN'T MIND THE RAIN.

Root uptake of LIMIT also means there's no wash-off worry. Let it rain. You can actually apply LIMIT while it's raining.

LIMIT IS SAFE EVEN WHEN YOU OVERLAP.

LIMIT is safe to turf, too. It's formulated to get consistent response and quality even where there's unavoidable overlapping; unlike other turf regulators that cause overlap browning.

What's more, LIMIT is harmless to ornamentals. And LIMIT won't stain monuments, sidewalks, or other fixtures.

EASY TO MIX, EASY TO APPLY.

Adding LIMIT to your current spraying program is easy. No special equipment is needed.

Plus, LIMIT can be tank mixed with both fertilizer and commonly used herbicides, so you get one-pass efficiency.

And, compared with other turf regulators, LIMIT is unusually tolerant of mixing errors.

MONSANTO GUARANTEES LIMIT WORKS.

This Spring, cut your toughest mowing and trimming jobs by half.

Monsanto guarantees that spraying LIMIT before seedhead will slow grass growth for up to six weeks. *Safely.*

Try new LIMIT where you want to mow and trim less. A lot less. And give your crew better things to do.

LIMIT®
TURF REGULATOR
BY Monsanto

DICK STEDMAN
President
Wright Lawn and Tree Care, Inc.
Clarence Center, NY

"We've had phenomenal results with LIMIT at two cemeteries. For the first time, we can tell our accounts we have a product that will consistently work."

PHIL PIRRO
Lawn Service Manager,
Landscaping, Inc.,
West Hartford, CT

"With LIMIT, I cut my mowing in half and freed up my personnel to do more detail work that my customers notice."

As sure as grass grows, you need LIMIT.®

- One application controls growth for up to six weeks.
- Labeled for repeat applications.
- Reduces mowing and trimming by half.
- Saves you valuable manhours.
- Fits your work schedule—apply before or after green-up.
- Will not wash-off—rain actually improves uptake.
- Overlaps safely.
- Safe to ornamentals, sidewalks, monuments, or other fixtures.
- Can be tank-mixed with fertilizer and commonly used turf herbicides for one-pass convenience.
- Easy to mix and apply.
- Available in quart or gallon size.
- Monsanto guarantees LIMIT will perform as promised on the label. *(Always read and follow label directions.)*

For more information, contact your local LIMIT dealer.
Or call this toll-free number for the LIMIT dealer nearest you.

1-800-225-1212

(except Nebraska and Alaska)

LIMIT®
TURF REGULATOR
BY Monsanto

Get a free quart of Roundup® when you buy LIMIT.®

For every 1 gallon of LIMIT® turf regulator you buy between November 1, 1985 and April 15, 1986, you get 1 quart of Roundup® herbicide free! This purchase may include any combination of quart or gallon containers of LIMIT. One quart of Roundup for each whole gallon of LIMIT purchased.

Please use the attached business reply envelope to take advantage of this offer.

LIMIT® and Roundup® are registered trademarks of Monsanto Company.
© Monsanto Company 1985
LIM-6-103

lawn care. He and Spray Green said "hello" to the '80s.

The "Inland Empire," as Riverside, San Bernadino, and surrounding areas are called, was a market aching to be tapped.

Bourbonnais instituted a direct mail campaign. "Response was good," he says. Oddly, Spray Green trucks boosted interest in his business. People asked what they were.

"I'd never heard of it (liquid lawn care); they hadn't either. But they were fascinated by the truck," he says.

Curiosity and profits and two different things though. The locals didn't educate easily. "Most thought it was hydroseeding, some thought maybe we sprayed dye on lawns," he says with a straight face.

Today, his clients are a bit more sophisticated (as is Spray Green's application schedule), but education remains a top priority for Spray Green crews.

Here, Bourbonnais feels he can't compete with big lawn care companies. "Companies like ChemLawn and others have a lot more money than we do. They can spend the money to educate their customers," he says. "Sometimes I feel like the man from Mars when I talk to these people."

ChemLawn has moved into neighboring Ontario, he says, and is "expanding inward." He expects heavy competition from the Midwest-based giant in the near future.

A promising market

Larry Bourbonnais has the level personality needed to make it in the business world. A born-again Christian, he treats both employees and customers with respect, although he's the first to tell you he's short on positive feedback to his employees.

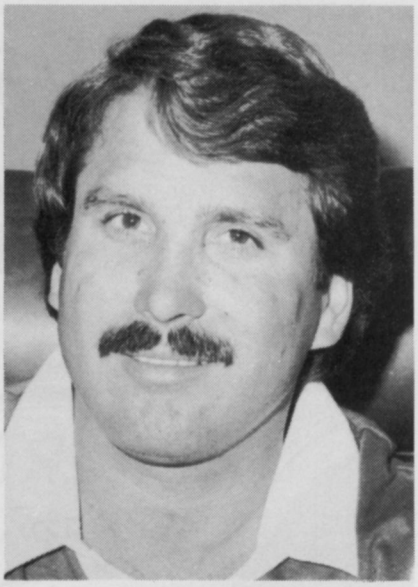
He will compromise. Example: Bourbonnais enjoys the comfort of an air-conditioned office. Company secretary Mary Steinkoenig, whose desk is located directly inside the front door, has an aversion to air-conditioning.

They reached an agreement. He leaves his office door almost closed (to trap the cool air) and she opens the front door (and keeps it open) to let in the sometimes smoggy Riverside air.

It's the same with the customer—a lot of give and take.

With a wink, Bourbonnais tells you it's a lot more give.

"We have the best reputation in town but people don't call me and say



Larry Bourbonnais, *owner of The Larry Bourbonnais Company of Riverside, Calif.*

'I want you to bid on my property' or 'I want to hire you.' I have to call on people, I have to knock on doors," he says.

The cold-call strategy, however cumbersome, has been a boon. He landed his two largest commercial accounts (Bournes Inc. and Bear Medical) with cold calls.

In Riverside, they're just two in a market that could make Bourbonnais a rich man. Development is everywhere, laying a foundation for a million-dollar lawn care business.

Bourbonnais hasn't reached that point. He's looking at a gross of $250,000 this year between the landscaping and lawn care divisions. That figure is doubled from 1980. It's a long way from the $150 (used to buy a mower and edger) he started with in 1973.

With his usual candor, Bourbonnais says his growth is slower than anticipated.

"Riverside is a good market, but it hasn't taken off like I thought it would. The problem is that the area is growing tremendously, but you don't have the big bucks like you do in Orange County," he says, noting that most living in Riverside have emigrated from affluent Orange County.

The reason is obvious, he says. You can buy the same home in Riverside for half of what you would pay in Orange.

Locals want to save money. And that means many skimp on other costs, including lawn care.

"Most don't know much about lawn care around here," he says. "They don't know how to water their lawns correctly during our hot spells. We had 17 days this past June and July over 100 degrees. Our environment (semi-arid) makes it tough on lawns."

An image

In laid-back Southern California employing a "gardener" is a status symbol but Bourbonnais bristles when discussing their merits.

"I never saw a gardener until I became one, and now everybody's a so-called gardener. This is casual California and there's guys here working on lawns in shorts with no shirts. I think it's horrible," he says.

"We have lettered trucks and I make sure they're cleaned and polished. Our guys wear nice shirts and clean pants.

"I think it's important especially with the commercial end. You have a company doing a half a billion a year and they don't want to see a bunch of losers hanging around with no shirts and long hair," he says.

He considers his commercial clients cake. He does 99 percent of his business with the individual homeowner.

He's lukewarm about the prospect of adding more condos to his client list, but says "there's going to be a lot more added to this area."

Typically, the Spray Green liquid fertilization and weed control program, designed for the Inland area, is a seven-step procedure.

It starts in February (fertilizer, potassium, and crabgrass pre-emergent control) and ends in December with fertilizer and potassium application. In between are more fertilizer (timed- and instant-release in May, July, and August) and broadleaf weed control applications.

There are no slow periods in sunny Southern California.

His two divisions are complementary. When it's raining, the grass is growing and the need for lawn care is high.

When it's dry (the norm in Riverside), maintenance booms. Maintenance and grounds management account for 75 percent of the firm's revenues.

Candid Larry says he wouldn't want to be in any other business. "I'm into grass," he says. "Even when I started I just liked to be outside mowing lawns."

That passion has developed into a business he hopes will gross $500,000 by 1989. **WT&T**

LANDSCAPE MANAGEMENT

Solving problems

Bob Clooten is a custom applicator seeking new ideas to old problems. His North Dakota firm is servicing 2,000 customers a year and that number is increasing.

Bob Clooten, *owner and operator of Fertilawn Inc. in Bismark, N. D.*

The morning shower is somewhat of a ritual for custom applicator Bob Clooten. He doesn't just sing in his shower. As the water pelts his body, Clooten mulls what he can do to make his business—Fertilawn, Inc.—stronger.

By 6 a.m., Clooten, at his shop/garage well ahead of Fertilawn's 25 peak-season employees, is already in motion.

"Good service will always sell," says Clooten. "It's the key, whether you're talking lawn work or industrial application. You need to be competitive, but service is what builds long-term business."

Clooten feels long hours, hard work, and a creative approach in the custom chemical application business still pay off.

Early last spring, for example, Clooten *worked* to earn a contract to control all vegetation at Basin Electric Power Cooperative substations. The new business calls for year-round bareground control at 36 electrical substations, some located 500 miles from Bismark, home base to both.

Hard work pays

Clooten, 33, started the business seven years ago in his father-in-law's garage. Selling door-to-door and by telephone, he custom-applied fertilizer, herbicide, and insecticide to about 200 lawns.

Last season, his company tended 800 lawns. For many, Fertilawn provides complete lawn care—from spring power raking through season-long fertilization and pest control to regular mowing. "All told, we serve about 2,000 customers a year," says Clooten.

'It makes me a better manager if I do some of the sales and application work myself.'
—Clooten

Fertilawn's services extend to other cities and towns in the region, including adjacent Mandan. The company holds its own against highly-promoted and franchised lawn care services.

The company's industrial division has enjoyed rapid growth.

"We work closely with manufacturers, conducting local experiments with new herbicides," he says. "We want to be known as the custom applicator with new ideas and products that solve problems."

Along with lawn and commercial chemical application, the crowded print on his business card also advertises: tree spraying; soil testing; ground sterilization; garden fertilizing; tissue analysis; lawn power raking, mowing and edging.

Lawn work at homes, businesses, schools and government institutions make up 75 percent of Fertilawn's business. Non-lawn industrial and commercial weed and grass control are increasing rapidly, he says.

The boom sprayer

Nineteen trucks equipped with solution tanks and a variety of application systems are used. For lawns, the company gains attention by using a small, hand-pushed boom sprayer with wheels. It's connected by a feeder hose to the service truck.

Fertilawn claims that greater fertilizer and chemical application accuracy are achieved with the boom, versus a single hand-held spray nozzle.

"People often call and ask if we're the lawn company with the boom sprayer," says Clooten.

Clean, attractive equipment and operators also are important, he says. "People comment about our clean trucks and uniformed men."

Homeowner invoicing also is innovative. Upon completion of an application, the Fertilawn operator leaves behind a handy pre-addressed envelope with the amount due included.

Clooten divides his time between selling, management, and application work. He often does all three the same day, changing from suit and tie to applicator uniform.

Powerful new medicine for turf diseases

VORLAN™ is Mallinckrodt's newest, toughest turf fungicide.

Enough experience has been gained with Vorlan by now — on golf courses and in university trials — to confirm that it establishes new standards of performance. Against Leaf Spot, Red Thread, Dollar Spot (even resistant strains!), and Pink Snow Mold, Vorlan delivers more effective control than any other fungicide available.

Vorlan's effectiveness — because it takes so little and lasts so long — also makes it economical, too.

If you haven't yet tried Vorlan, you should. Call Mallinckrodt toll-free, or contact your Mallinckrodt Turf Products distributor. No prescription is needed!

Mallinckrodt®

P. O. Box 5439
St. Louis, MO 63147
(800) 325-7155

Circle No. 128 on Reader Inquiry Card

Fertilawn's Brad Jossart *uses the boom sprayer.*

"It makes me a better manager if I do some of the sales and application work myself," he says. "I stay familiar with the problems. And for some of our industrial work, I have the most experience." About 60 percent of his work time is spent on sales and management and 40 percent on applications. His usual work day during busy seasons is 6:30 a.m. to 9 p.m.

Business goals

Clooten credits his success to hard work, inventiveness, a positive attitude, and good employees.

Employee performance comparisons, meetings, individual conferences, job-related training courses, and incentive pay help maintain continuity.

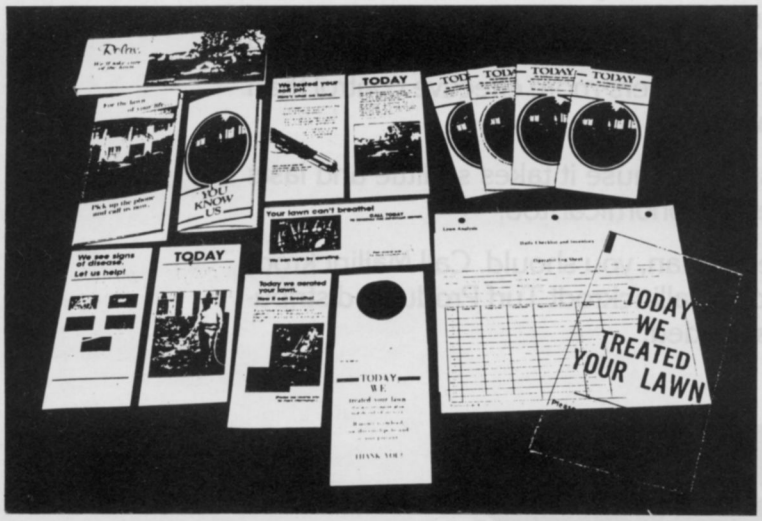
Fertilawn uses Du Pont Hyvar herbicide to achieve soil sterilization under hard-surfacing, such as in the case of parking lots. Karmex and Velpar herbicides are also applied at industrial and commercial locations.

"Setting business goals is vital," he says. "We look for referrals from present customers and a high rate of repeat business."

Can a custom application business such as Clooten's Fertilawn be sustained? "I'll make it go on," he answers. "I get up every morning with a positive attitude and make it grow.

"Taking my morning shower, I start thinking, 'What can I do today to make the business more productive than it was yesterday?.'" **WT&T**

Quality brochures to promote your lawn service business.



Designed to increase customer response and enhance the professional image of your company, these new brochures from LESCO will give your lawn service company an updated look for 1986.

Brochures are of extremely high quality, printed in full color on fine paper stock and can be ordered with or without personalized imprinting. Small or large quantities are available and the entire selection is very competitively priced.

LESCO . . . the full-service supplier to the lawn care industry. For more information or to obtain samples, call LESCO toll free.

(800) 321-5325 NATIONWIDE **(800) 362-7413 IN OHIO**

LESCO

LESCO, Inc. • 20005 Lake Road • Rocky River, Ohio 44116 • (216) 333-9250

Circle No. 126 on Reader Inquiry Card

RYAN® INTRODUCES THE

Lawnaire® IV

The self-propelled walk-behind aerator that does a professional job on home lawns and smaller turf areas.

- Equipped with 30-3/4″ coring tines providing an aeration pattern of 9 holes per square foot.
- Penetration up to 2 3/4″.
- Two weight options provided for increased downward pressure - a 38 lb. steel bar and/or steel drum that holds 55 lbs. of water.
- Convenient lift handle for raising and lowering transport wheels which provide added maneuverability.
- Covers up to 21,000 square feet per hour.
- Tine wheel shaft and water drum shaft are equipped with two grease fittings and protected by felt seals to keep out dirt.
- 3 h.p. industrial engine with rotary stop switch for easy shut-off.
- Fuel tank holds two quarts.

Designed for the professional who wants to provide quality core-type aerification at a high rate of speed, the new Lawnaire IV is the most dependable walk-behind roll-type areator on the market.

More and more homeowners are asking for lawn aeration to break down thatch and improve turf quality. The Lawnaire IV offers lawn care professionals and rental outlets a core aerator that pays for itself in just weeks.

LAWNAIRE IV SPECIFICATIONS

Model 544863

DIMENSIONS
Width . . . . . 28″
Swath . . . . . 19″
Weight . . . . . Dry-215 lbs.
Water in drum-265 lbs. (6.6 gallon capacity).

POWER
Engine . . . . . 4-cycle, 3 hp industrial with 6:1 gear reduction, dual air cleaner, with rotary on-off switch, low tone muffler.
Clutch . . . . . Belt tightener.
Driver . . . . . Primary: V-belt 4L-section to clutch idler. Secondary: #40 roller chain to tine assembly. Transport: #40 roller chain to barrel.
Lubrication . . . . . Two grease fittings in each axle hub.

UNIT
Penetration . . . . . Up to 2 3/4″
Aeration Pattern . . . . . 3 3/4″ x 7″ center to center.
Speed . . . . . Operation: 225 f.p.m. Transport: 190 f.p.m.
Productivity . . . . . Up to 21,000 sq. ft. per hour.
Tines . . . . . 3/4″ Coring-type, formed from .08″ thick heat-treated alloy steel, 30 tines per aerator.
Tires . . . . . Two 8 x 1.75 semi-pneumatic with ball bearings.

For more information call your Ryan Sales, Service and Parts Dealer today.
Or call toll-free 1-800-228-4444

OUR REPUTATION IS BUILT TO LAST

Cushman-Ryan, OMC Lincoln
P.O. Box 82409 #2701
Lincoln, Nebraska 68501-9971

Tine Replacement Part #522361

®Outboard Marine Corporation, 1986. All rights reserved.

Circle No. 106 on Reader Inquiry Card

Partners Mike Baty (left) and Tom Ayers *of Chem-Spray, Stockton, Calif.*

Thinking small

A Stockton, California, firm still services the first client it gained in 1975. Ten years growth hasn't led to a decline in attention to the little details.

Success as small custom applicators in the competitive weed control field was just a dream, back in 1975, for two young Californians.

Today the dream is a reality. And it's in Stockton, Calif., that Tom Ayers and Mike Baty first established and have now developed their quality-minded firm known as the Chem-Spray Co.

Chem-Spray targets its operations at the industrial customer. The firm controls weeds and grass on plant sites, fence lines, roadsides, parks, school sites, housing developments, curbs, ornamental plantings, and similar areas.

Much of its business is close by, in California's central valley but a good chunk is also as far away as Reno, Nev. (200 miles east), where a difference in climate means an extended treating season for Chem-Spray applicators.

Humble beginnings

The small firm began as a boot-strap organization, with $1,000 invested by each partner and a $13,000 stake from a friend (which took five years to repay).

But Chem-Spray has grown, because Ayers and Baty know that chemical weed abatement is more economical than pulling weeds manually or controlling them mechanically.

"We had an idea," reflects Ayers. "It was to give a one-year guarantee with every job we do.

"We started out selling weed control—not weed treatments. We've developed satisfied customers by delivering performance. In the first year, we had only 50 customers and we grossed about $30,000.

"Today we've got over 600 customers, many with multiple sites that need annual care. A few of these customers ask for help on good-sized areas—up to 100-150 acres, for example. But the average is quite small—a few acres or even less. And we still serve our very first customer, a custom-builder of looms," says Ayers.

The Chem-Spray partners recall their early days when they shared the use of a single spray rig they had built themselves.

Today their three rigs are operated by Chem-Spray employees, men who have joined the business to work on an incentive system, so that precise application results in few call-backs and added compensation for the employee. It's a system that's built loyalty and stimulated results.

Ayers and Baty handle sales, paperwork, and management. They get along without secretarial help. "We aim at maintaining quality at reasonable cost," say the partners.

They've used a wide array of herbicides, both residuals and contact materials, and have kept intricate records with various products and rates.

Computerization

But it was in 1983 that Chem-Spray took two big steps that have helped build business success at a faster rate than in earlier years.

Announcing a major new industry event!

Landscape Exposition

March 5-7, 1986 Valley Forge Convention Center
Valley Forge, Pennsylvania

Finally, you can catch the *entire* lawn care and landscape industry at one exciting show. The new Landscape Exposition will bring together the largest group of landscape/lawn care professionals and suppliers of products and equipment ever assembled in one place. At least 17 markets will be represented!

The Landscape Exposition is being held at the brand new Valley Forge Convention Center in Valley Forge, Pennsylvania, a suburb of Philadelphia. This fine center offers you many advantages including free parking, non-union staff, fantastic hotel facilities, and easy access from major highways and airports.

This exciting show has the enthusiastic support of the Professional Grounds Management Association, Associated Landscape Contractors of America, and Sports Turf Managers Association, and other professional groups. It is sponsored by *Weeds, Trees and Turf* and *Lawn Care Industry* magazines. And it is managed and promoted by HBJ Expositions & Conferences, a division of Harcourt Brace Jovanovich.

Make sales ... find new sales leads ... keep on top of the competition ... see all the newest products and equipment ... share ideas with your peers. Don't miss the largest and most comprehensive landscape show ever!

HBJ PRODUCED AND MANAGED BY HBJ EXPOSITIONS & CONFERENCES

Plan now to attend or exhibit:

Landscape Exposition

P.O. Box 5555, 50 Washington Street, Norwalk, CT 06854
Phone: (203) 853-0400 (800) 243-2815

YES! I'M INTERESTED!

Please send me, at no cost or obligation, an
☐ Exhibitor's prospectus and application
☐ Attendee's information package

Name _____ Title _____
Company _____
Address _____
City _____ State _____ Zip _____
( )
Telephone _____

Goossen's
Bale Chopper
THE MULCHING SOLUTION.

The Bale Chopper shreds and blows a bale of straw in seconds.

30 ft. flexible hose lets you mulch around trees and shrubs with ease.

Ideal for mulching newly seeded lawns and nursery stock.

The gas model (shown) operates independently and can be used from a truck bed. PTO model available.

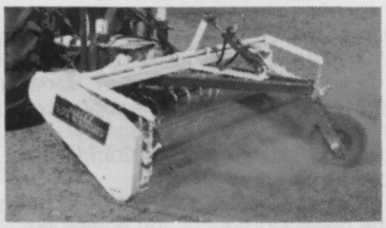
Find out more about the Bale Chopper, call Goossen Industries today.

TOLL FREE OUTSIDE NEBRASKA
800-228-6542
IN NEBRASKA 402/228-4226

Goossen INDUSTRIES
927 W. COURT · BOX 705 · BEATRICE, NE 68310

Circle No. 116 on Reader Inquiry Card

NEW ... HARLEY
Double Roller Landscape
POWER RAKE



PULVERIZES, LEVELS & RAKES ROCK, roots and other trash. Double Roller gives deeper penetration and allows moving of several windrows into one for faster pickup. **New scarifier.** Also ask us about Harley Rock Pickers.

glenmac inc.
(701) 252-9300
Toll Free 1-800-437-9779

Circle No. 115 on Reader Inquiry Card

The Tagalong sprayer, *designed by Ayers and Baty, is used for fertilizer application on garden apartment turf.*

First, the partners switched to a computer system to handle the records. "We use our computer to schedule work, to bill our customers, to keep records and file reports." says Ayers.

"It helps in a bid situation, giving us confidence we're working on an economic level. It tells us when to check up on specific jobs and when to follow-up on customers for another year's business."

Ayers notes the company has a computer program geared specifically toward small business needs in industrial weed control.

"It saves time every day. Initially, we indexed the computer to help evaluate our herbicide experience with various problem weeds and guide us on application rates. The idea was to point the way toward the right products in repeat applications."

Secondly, Ayers and Baty took a look at some early trials with DuPont's Oust herbicide.

Chem-Spray reports this new herbicide has been effective in controlling a very wide range of tough weeds.

In addition, the few "escape weeds" from Oust are easily controlled. Says Baty: "With Oust, you also get a much broader application window than with the earlier residuals. We treat in California from October to March, and we've found that by working with Oust, we've reduced our call-backs for follow-up contact treatments by well over half."

Innovation

Chem-Spray has developed specialized equipment for applying herbicides and also fertilizers (a minor part of their business).

A "Tagalong" spray rig, for example, can be hooked up with a three-wheeled Honda or with a four-wheel pickup.

The spray boom is controlled by the light switch on the Honda. The vehicles are very maneuverable, and hence they're ideal for tight turns and small jobs.

Bare-ground weed and grass control is a standard customer expectation on most Chem-Spray jobs.

In the West, local lawmakers consistently set up tight specifications on weed growth to minimize or avoid fire hazards in the summer, when vegetation dries up on unirrigated land. So the "clean look" in a vacant yard or open-air storage facility means no heavy vegetation stands during the winter growing season.

One product

It's problem species like ryegrass and Russian thistle that have often triggered two or more chemical treatments in years past. One herbicide spray took care of the winter weeds; another, the summer species.

"Now, we can get away from that routine," Baty says.

"We've been able to use Oust at a number of different rates, on a single site, depending on what we have to control. We always survey our new sites before we start with any weed control program. Then we set up the treatment on our computer and our team follows through. We've never stopped thinking small. It's helped us grow," says Baty. **WT&T**

THE GENTLE GIANTS

Here are E-Z-GO's hard workers in three-or four-wheel, gas or electric models. With durable, diamond-plated steel Polane-coated panels and load beds, including options such as sprayers, aerators, spreaders, top dressers, and more. Each one tough but easy on turf.

The XT-300

This is a reliable three-wheel electric answer for a wide variety of jobs where maneuverability is critical. It provides a payload capability of up to 1000 pounds in its roomy 5.7-cubic foot, diamond-plated load bed.

The GXT-7

Here's the heavy-duty workhorse in the line. Powered by an 18 H.P. engine for payloads of up to 1500 pounds. For golf course or public grounds, its large load bed has sides and tailgate. Options include a hydraulic dump, PTO, and range changer. The GXT-7 adapts to many accessories: sprayers, spreaders, top dressers, and aerators to handle any job.

The GXT-800

Reliable, economical, this mid-size hauler more than pulls its own weight. It has a two-cycle, 244cc engine with rack and pinion steering, heavy-duty springs, and hydraulic shocks, plus a whopping 1000-pound load capacity. Options and accessories such as cabs, bed covers and loading ramps make it an ideal all-around utility vehicle.

The PC4GX

E-Z-GO's gas-powered, 4-passenger personnel carrier is your best bet for moving staff and clients around resorts, hotels and worksites quickly, efficiently, and economically. Headlights, taillights, brake lights, horn, oil-injected engine are only a few of the standards.

The PC4X

Where quiet is key, our efficient electric-powered personnel carrier is the answer, complete with an onboard charger, retractable AC cord and stainless steel battery racks.

For your resort, campus, office park or other maintenance needs, go durable, dependable E-Z-GO. The most advanced, most versatile line of utility vehicles in the world.

The XT-500

All brains and brawn. 1000-pound capacity, mid-size, powered by a 36-volt high efficiency electric motor. Perfect for hospitals and campuses, wherever quiet efficiency is as important as durability.

The GXT-300

This tough gas-powered three-wheel vehicle is perfect for light to medium-sized loads. A two-cycle, oil injected, 244cc engine keeps it running efficiently. It has a 1000-pound capacity, and is engineered especially for easy maneuverability.

E-Z-GO TEXTRON

If you'd like more information on the complete line of E-Z-GO Turf Vehicles, fill out this coupon and mail to: Turf Products Mgr, E-Z-GO, P.O. Box 388, Marvin Griffin Road, Augusta, Georgia 30913-2699.

Name _____ Title _____

Company _____

Address _____

City _____ State _____ Zip _____

Phone _____

WTT 1185

Circle No. 114 on Reader Inquiry Card

CHIPCO® 26019 DISEASE CONTROL IN YOUR PROGRAM KEEPS THE OTHER GUYS OFF YOUR TURF.

Reduce customer turnover and increase profit potential with long-lasting disease prevention.

It costs a lot to replace a lost customer. So you put together a complete lawncare program. Not just to keep customers' lawns looking good all season. But to keep your customers loyal.

A complete program includes preventative disease control. And only one lawn care fungicide — the market leader — keeps your customers satisfied, fits into your schedule, and improves your profitability.

That product is CHIPCO® 26019 fungicide. Because it does *its* job without complicating *your* job.

CHIPCO 26019 is a low-toxicity product that controls all the major lawn diseases: Helminthosporium Leaf Spot and Melting Out, Fusarium Blight, Brown Patch, Dollar Spot, and Red Thread.

It's the only fungicide that provides this control long enough to get you from one scheduled round to the next, reducing costly callbacks.

Protect your turf and build your profits. Make CHIPCO 26019 a part of your lawncare program.

Rhône-Poulenc Inc., Agrochemical Division, Monmouth Junction, NJ 08852.

RHONE POULENC

CHIPCO 26019

Taking care of business.

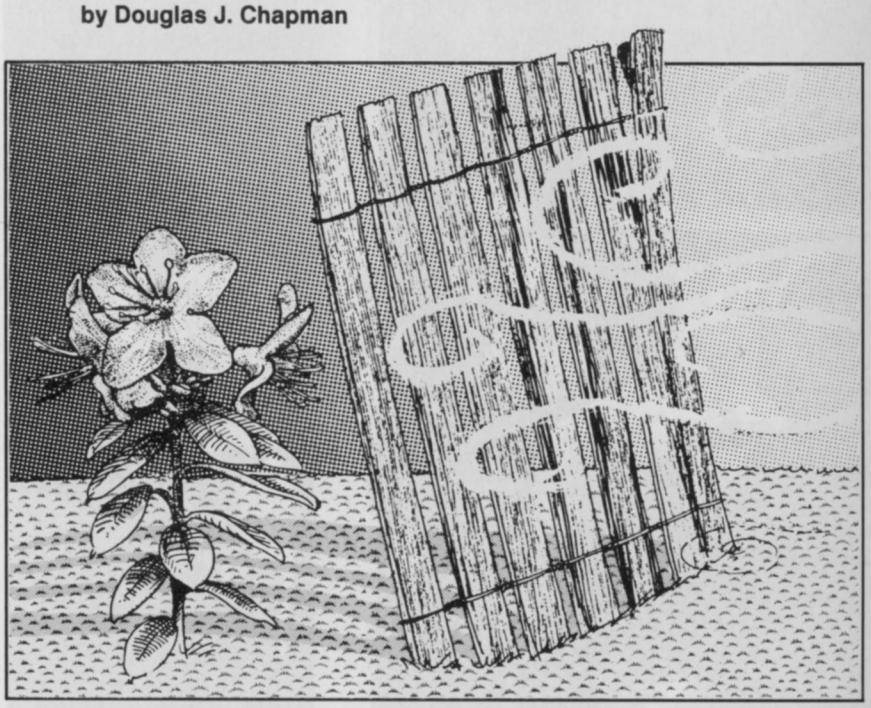
CHIPCO® is a registered trademark of Rhône-Poulenc Inc.

Circle No. 152 on Reader Inquiry Card

Winter injury

Understanding the causes of winter injury of landscape plants will help you avoid the effects, says a *Weeds Trees & Turf* technical advisor.

by Douglas J. Chapman



To consider protection against winter injury for landscape plant material, you have got to understand the causes of winter injury: low temperature, rapid temperature fluctuation, degree of dormancy, desiccation, and physical injury.

Low temperature injury is generally accepted as the critical temperature at which the plant tissue is killed.

Frequently, the temperature differs for flower buds, vegetative buds, stems, and roots. Plants native to northern areas—the Great Lakes region (Michigan, Wisconsin) and the Northeast—are generally capable of withstanding low temperatures of minus 25 to 35 degrees Fahrenheit before cell freezing and tissue death occur.

The ability to withstand a low cardinal temperature is controlled genetically and is affected by the amount of carbohydrates accumulated within the plant.

Generally, the higher the plant's accumulated carbohydrates, the lower the temperatures it will tolerate.

Temperature fluctuation

Rapid temperature fluctuation is frequently a more important factor in winter injury. When the temperature drops rapidly after several warm days, some injury may occur.

This type of winter injury occurs during February and March when the temperature may drop 30 degrees or more in one day.

Frequently, hardy plants are damaged. Often heavy mulching of the root system with organic matter (bark, compost, peat moss) is used to protect these plants.

Mulch acts as does the insulation in our homes to modify temperature fluctuation.

Mulch should be put on just prior to soil freezing to limit not only the effect of cold temperatures but also to help keep the soil cool longer in the spring, therefore delaying premature commencement of growth.

Plants with a rather tender top—roses,for example—can be protected by mulching the crown and the upper portion of the plant with straw or similar material.

This crown mulch is designed to slow the rate of temperature fluctuation, thereby protecting the plant's flower and vegetative buds from damage.

Dormancy and desiccation

Degree of dormancy also impacts whether a plant will be injured by low temperatures.

Plants that go dormant due to the photoperiod include many of the more northern native species (sugar maple, red maple, red oak, *Viburnum prunifolium*). They are slow to break dormancy and are most often tolerant of early spring temperature thaw.

Plants that go dormant due to cold temperature can lose dormancy quickly (forsythia, hydrangea) and can be dramatically injured during January or March thaws.

Desiccation is a particularly severe problem on narrow and broad leaf evergreens, occuring in late February or March when the soil is still frozen, air temperature is high, and the sun is shining.

The foliage starts transpiring, or losing water. Yet the soil is frozen and the roots are unable to absorb water.

To protect against this type of winter injury, one should consider either companion plantings or shielding the individual plants.

A fine example of companion planting is planting rhododendron with pine, allowing the rhododendron to be understory to the pine tree.

A good rule of thumb is the smaller the leaf of the rhododendron (*R. carolinianum, R. laetivirens*), the more tolerant it is of sunlight. Conversely, the large leaf rhododendrons (*R. catawbiense* or *R. maximum* cultivars) are less tolerant, thus requiring more shading.

Wind protection

Shielding is nothing more than placing wind breaks on the windward side of the plant.

continued on page 56

"Let Blazon™ take the guesswork out of spraying!"

That's right! All of us have seen it before — that unacceptable area in our fairways or lawn. Just as important, an area where chemicals have been over-applied and a burned condition exists, and that can mean extra work for you. ¶ It's difficult to spray accurately and consistently on golf courses because every golf course is made up of countless slopes, contours, and bends. But with Blazon™ Spray Pattern Indicator you can take the **guesswork** out of spraying, **forever**. ¶ All you do is add Blazon™ right to your spray tank; it's totally compatible with the chemicals you use. It reduces lost time by quickly identifying a clogged nozzle, untreated or overlapped areas. In addition, Blazon™ is temporary and non-staining. ¶ Blazon™ Spray Pattern Indicator is the **new solution** to a never-ending problem. So contact the distributor nearest you for the product that has taken an art and turned it into a science—**"The Professional Solution for Professionals"...**

Blazon™

SPRAY PATTERN INDICATOR

MILLIKEN CHEMICALS

Milliken Chemical, Division of Milliken & Company, P.O. Box 817, Inman, South Carolina 29349, (800) 845-8502

Circle No. 131 on Reader Inquiry Card

Winter *from page 54*

Shielding can be made of snow fence, burlap, or branches of discarded Christmas trees. You can use anything that decreases the velocity of drying winds or provides shade from the bright late February or early March sun.

A list of plants you may consider protecting includes rhododendron, andromeda, mahonia, holly, yew, and upright juniper.

Physical injury

Physical or mechanical injury may be the result of snow, ice, or rodents.

Many plants, such as yew and spruce, can be damaged due to the weight of heavy, wet snow. This causes discontinuity in the vascular tissue and renders the plant susceptible to injury during the following growing season.

Ice injury (which may be simply broken branches or a bent over plant), in contrast to heavy, wet snows, is hard to control.

The heavy, wet snow can be knocked off the plant within 24 hours but the injury caused by ice can be catastrophic as there is little or no protection you can offer.

Rodent injury can be devastating. They prefer a few favorite plants including the rose family (roses, apples, pears), cherry trees, *Euonymus alatus*, and yews.

Rapid temperature fluctuation is frequently a more important factor in winter injury.

A resident cat may be the best control for this type of injury.

Another solution is wrapping the lower 18 inches of the plant with ½-inch hardware cloth.

Furthermore, putting out poison baits can reduce populations to where injury is essentially non-existent.

Other alternatives

Plants, especially broad leaf and narrow leaf evergreens, should be deeply watered just prior to the freezing of the soil.

This deep watering helps supply sufficient moisture to plants that continue to transpire, enabling the plant to replenish some lost moisture that has transpired during the cold winter months.

Furthermore, mulching the plant just prior to soil freezing allows an opportunity for the roots to function, thus surviving long cold/dry periods.

When considering winter protection, you should remember that you are trying to:

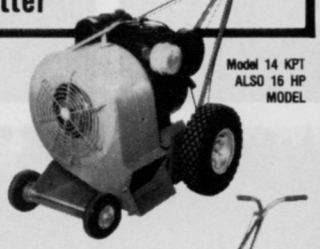
- minimize temperature fluctuation;
- reduce water loss due to transpiring—be it by use of anti-transpirants applied to the foliage or shielding the plants;
- provide moisture during periods of stress by deep watering plants.

As it has been aptly said, "Winter protection is nothing more than modifying the extremes that plants will be subjected to, therefore, minimizing the chance of winter injury and allowing us to grow plants farther north than their range would indicate and adaption allows."

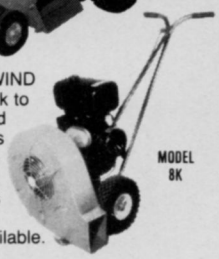
Understanding the plant's requirements and why winter injury occurs gives the grounds manager a course of action to minimize the impact of winter's extremes. **WT&T**

Lo-Blo, the Air-Broom®
rounds up leaves and litter

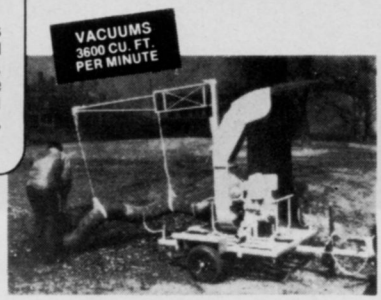
ADD PUNCH in lawn cleanup work to make tough jobs quick and easy. A small crew using Atwater Strong **HEAVY DUTY COMMERCIAL BLOWER-SWEEPER** can gather leaves, trash, litter, clippings faster than any other way!



Put a WHIRLWIND FORCE to work to blow lawns and paved surfaces clean every season of the year. Get facts on 9 models. 3 to 45 hp available.



for EASY "GET AROUND"
BACK PACK brings one more capability to **AIR BROOM** performance. With wand or hand-held, gets into tight corners, hollows, foliage and even overhead. Weighs only 21 lbs. yet blows at 220 mph. Reliable, economical 2-cycle engine.



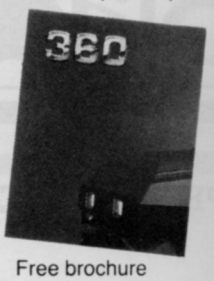
MI-T-VAC 16 SVL
'BIG JOB' LOADER ON-A-TRAILER
packs dump truck full of leaves in 25 minutes. Has 16 hp cast iron engine, 8" hose reaching 20 feet. Boom to swing hose available.

ATWATER STRONG ASD DIVISION OF GOULDER INDUSTRIES, INC.
BOX 68 · ATWATER, OHIO 44201
LAWN EQUIPMENT SINCE 1949 216 / 947-2344

Circle No. 101 on Reader Inquiry Card

Productive Sweeper

Backed by best warranty ever: 2 years or 2,000 hours. TENNANT® 360 offers unmatched pick-up, dust-free sweeping, and reduced dumping times. It is 50% faster and has 41% more useable hopper space than comparable units. Quiet operation: 82 to 83 dBA. Free video training for operator. Ask for a free demonstration.



Free brochure

TENNANT®
CALL TOLL FREE: 800-328-5727 EXT. 768R

Circle No. 145 on Reader Inquiry Card

HOW TO TELL IF YOUR COMMERCIAL MOWER IS BUILT FOR A LONG LIFE

There is a simple way to be sure your commercial mower is designed for a long life, and is built to achieve it.

Buy Bunton

to be sure your mowers have welded one-piece steel construction, lubrication points at each moving part, pneumatic puncture resistant tires and more.

Specify 2-cycle

for an engine that often provides 4 seasons of hard commercial use without major maintenance (2 season warranty), as much torque from an 8 hp as with an 11 hp 4-cycle, the piece of mind provided by taking the critical engine lubrication function out of the hands of your operators, and *a cost competitive with the most popular 4-cycle engines.*

Use the System

that puts your key equipment on the same fuel/oil mixture, with Bunton trimmers, backpack blowers and mowers.

BUNTON

Bunton builds 'em better.

BUNTON CO.

P.O. Box 33247
Louisville, KY 40232
502/966-0550
Telex: 204-340

GSA No.: GS-07F-13196

Circle No. 104 on Reader Inquiry Card

Direct mail

Some firms make the mistake of using it as their lone marketing tool. It should be just a part of an overall marketing plan.

by Rudd McGary and Ed Wandtke

Is direct mail still a cost-effective method of reaching the consumer?

Judging by the number of green industry companies which have used direct mail in the past decade, you would guess that it is.

But the real answer to that question is twofold:

- **If direct mail is your only method of reaching the consumer, you're in trouble.**
- **Direct mail as a part of a coordinated marketing plan can be valuable—but not as much as it once was.**

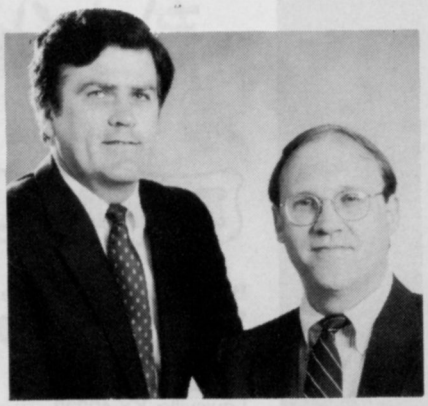
Making your point

The company wanting to attract new customers has to use a more sophisticated marketing effort than simply mailing brochures to everyone in a ZIP Code.

The major reason direct mail is less effective today is stated in the second paragraph: everyone is doing it.

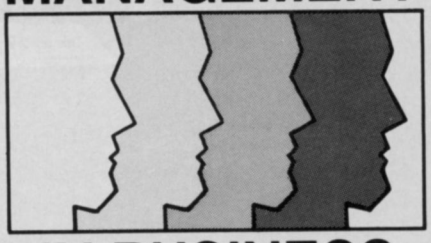
As the consumer is bombarded with direct mail pieces, he either ignores them or becomes confused as to company name or brand identification.

A second problem is lack of originality. Most companies in the green industries produce brochures similar to that of their competitors.



Wandtke and McGary are owners of All-Green Management Associates, Columbus, OH

MANAGEMENT



IN BUSINESS

You know the style. Pick one. They have a truck, male worker (always smiling), and a child or family on a green lawn.

We have 60 brochures from a wide variety of companies, and if you cover the company name you can't tell the difference.

This benefits the firms that can afford television advertising. If you can't afford TV's steep rates, you should alter your marketing plan to help build a larger customer base.

The following four steps could make you a more effective marketer:

- Coordinate telemarketing with the mailing dates of your brochures.
- Maintain a personal selling force that excels at closing.
- Alter your brochures.
- Know the final objective for using the brochures: to allow a salesperson to make a one-on-one sales effort with the possibility of closing the sale in that time period.

One step further

Before you begin to physically alter your printed pieces, consider these changes.

1) Stay away from the industry norm of featuring a happy family or technician in your brochure.

2) Consider using drawings as opposed to photos, and make sure your name is the most prominent feature of the piece.

3) For the sake of readibility, don't attempt to explain agronomics to the consumer. Technical reading will turn him off.

4) Try using colors other than green. Dare to be different.

In the past, brochures netted a 2 to 3 percent response rate, even higher in some cases. No more. Now it's below 1 percent in certain markets, and start-up companies are experiencing return rates of below one-half of a percent.

Their direct mail will look different, be coupled with other marketing efforts, and performed in a systematic manner.

We know of one company that mailed 30,000 brochures and received 16 responses. With intelligent marketing techniques, you can prevent these results.

Direct mail can still be an integral part of your overall marketing, but coordinating it with your other marketing tools is the key to attracting new business.

Believing direct mail is the key to attracting new business will lead to disaster.

Aggressive, far-sighted companies are coordinating all marketing efforts in a systematic fashion.

Their direct mail will look different, be coupled with other marketing efforts, and performed in a systematic manner.

They'll be around next year. How about you? **WT&T**

BEFORE WE DEVELOPED THESE PROBLEM-SOLVING TURFGRASS MIXTURES, WE MARCHED THROUGH ACRES AND ACRES OF PROBLEMS.

Nobody knows the troubles we've seen.

Our Northrup King turf specialists and researchers have hoofed through salt problems, soil compaction, disease, starved turf, baked turf, cleated-to-shreds turf, and dormant winter turf—all depressing sights. But it was a road well worth our travels.

The result is a complete line of Medalist® turfgrass formulas that meet the demands of the professional turf manager.

If you've been staring down at a turf problem, look up your solution here. And if you think it's a turf problem we haven't seen, just let us know.

Our business is putting your problems behind us.

MEDALIST TURF PRODUCTS ™

MEDALIST TURF PRODUCT	MAJOR AREAS OF USE	SPECIAL FEATURES
Athletic Pro and Athletic Pro II	For athletic turf.	Well suited for new seeding or overseeding. Fast establishing, traffic tolerant, rapid recovery. Both provide good footing.
Boulevard Mix	Any area with high pH (roadsides, sidewalks, boulevards, alkaline soils, etc.).	Contains 'Fults' and Dawson red fescue for beautiful salt-tolerant turf. Performs at low to high fertility levels.
Landscape Pro Mix	School grounds, cemeteries, golf course roughs, home lawns.	Establishes fast. Adapts to broad range of conditions and management levels. Low to moderate fertility needs.
Overseeder II Mix	Fairways, tees, athletic fields.	Rapid germination and establishment. Withstands heavy traffic and resists diseases. Penetrates compacted soils.
Medalist North Mix	Fairways, tees, cart paths, wear areas.	Quality turf for high traffic areas. Clean mowing and disease resistant.
Premium Sod Blend	Commercial sod production.	Exceptional dark green color. Tolerates light shade. Superior disease resistance. Rapid sod producer.
Renovator Pro Mix	Problem solver for heavy traffic areas (athletic fields, golf tees, and fairways).	Penetrates compacted soils and combats *Poa annua.* Adaptable to most geographic regions.
Medalist Brand Overseeding Products	Winter overseeding of dormant bermudagrass.	Establishes rapidly and evenly. Tolerates traffic while providing a superior putting surface. Smooth spring transition.

Ask your Northrup King distributor about Medalist Turf Products to solve your turf problems. Or write Northrup King Medalist Turf Products, P.O. Box 959, Minneapolis, MN 55440.

Circle No. 134 on Reader Inquiry Card

Sandhills students *Linda Anderson and Dan Gobush working on the college's annual garden, which they co-designed.*

Hands-on experience

Graduates of the two-year horticultural program at Sandhills Community College now work at the White House and Monticello. Others have started their own businesses.

by Sandra Ladendorf

Hands-on experience. That's what the two-year Landscape Gardening program at Sandhills Community College in Carthage, N.C., emphasizes.

Jeff Etheridge, who already has a business degree, came to learn how to design his own supply nursery.

David Ingram intends to become a golf course architect.

Scott McCullough decided horticulture was the field for him while building a greenhouse in California.

Cathy Blair used to be a manager at McDonalds.

Linda Daniel, a Duke University grad, worked as a journalist and in hortitherapy.

Sandra Ladendorf is a freelance writer based in Chapel Hill, N.C.

Linda Anderson, with a degree in botany from the University of North Carolina, has been working in the landscape industry.

They chose Sandhills to receive practical, marketable, landscape gardening experience, leading to a career in the field.

Some came right out of high school. Many have college experience, including advanced degrees.

The educator

The pragmatic program at Sandhills College was developed in 1968 by Fred Garrett, a graduate of the University of Florida and Virginia Polytechnic Institute and State University (master's degree in horticulture, 1966).

His first job was at the Norfolk Botanic Garden, which Garrett describes as a lovely city park, but not a botanical garden. As headmaster of the school of horticulture, Garrett found a new niche.

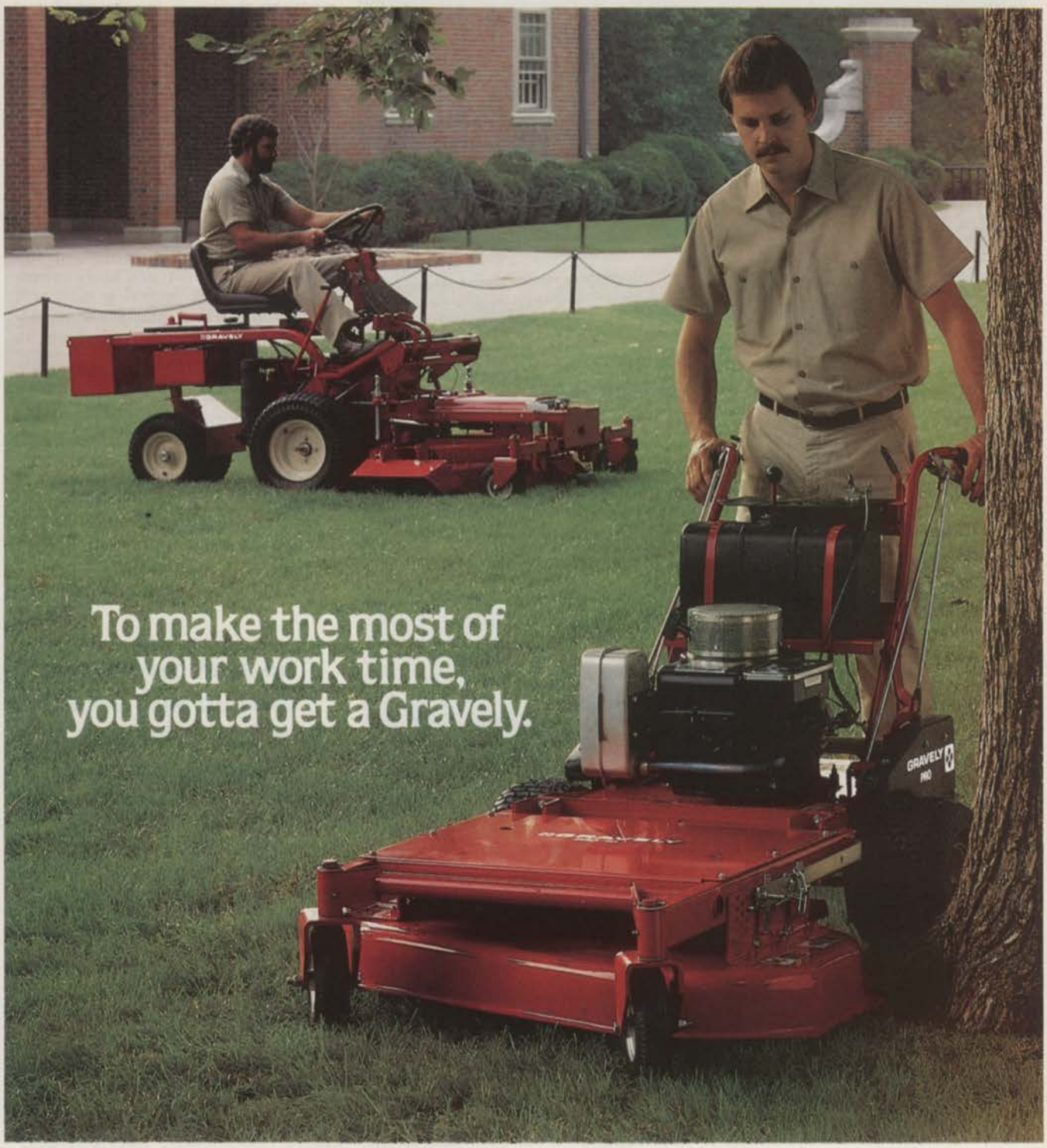
"I had never considered myself an educator," he says, "but I found I enjoyed telling others what I knew."

He has spent the next 20 years as an educator.

While at Norfolk, he befriended Fred Heutte, the recently-retired director of parks in that city. Heutte had ties to the Sandhills area of North Carolina and was working with Sandhills Community College to initiate a horticultural program there.

In 1968 Fred Garrett was offered the job of developing a two-year horticultural curriculum for the college.

After accepting, Garrett paid visits



The Pro Series feature out-front mowing decks for efficient trimming around trees, bushes, posts and other obstacles. And the decks are specially engineered to give a professional cut. Pro and Pro Master are highly maneuverable, have instant forward/reverse and zero turning radius for easier mowing in tight areas and to help you make the most of your work time.

Pro Master gives you a choice of rugged 16, 17 or 19 hp Kohler engines with 50″ or 60″ mowing decks. Pro offers three durable commercial engines and a choice of 36″, 40″ or 50″ rotary mowers so you can match your machine to your work.

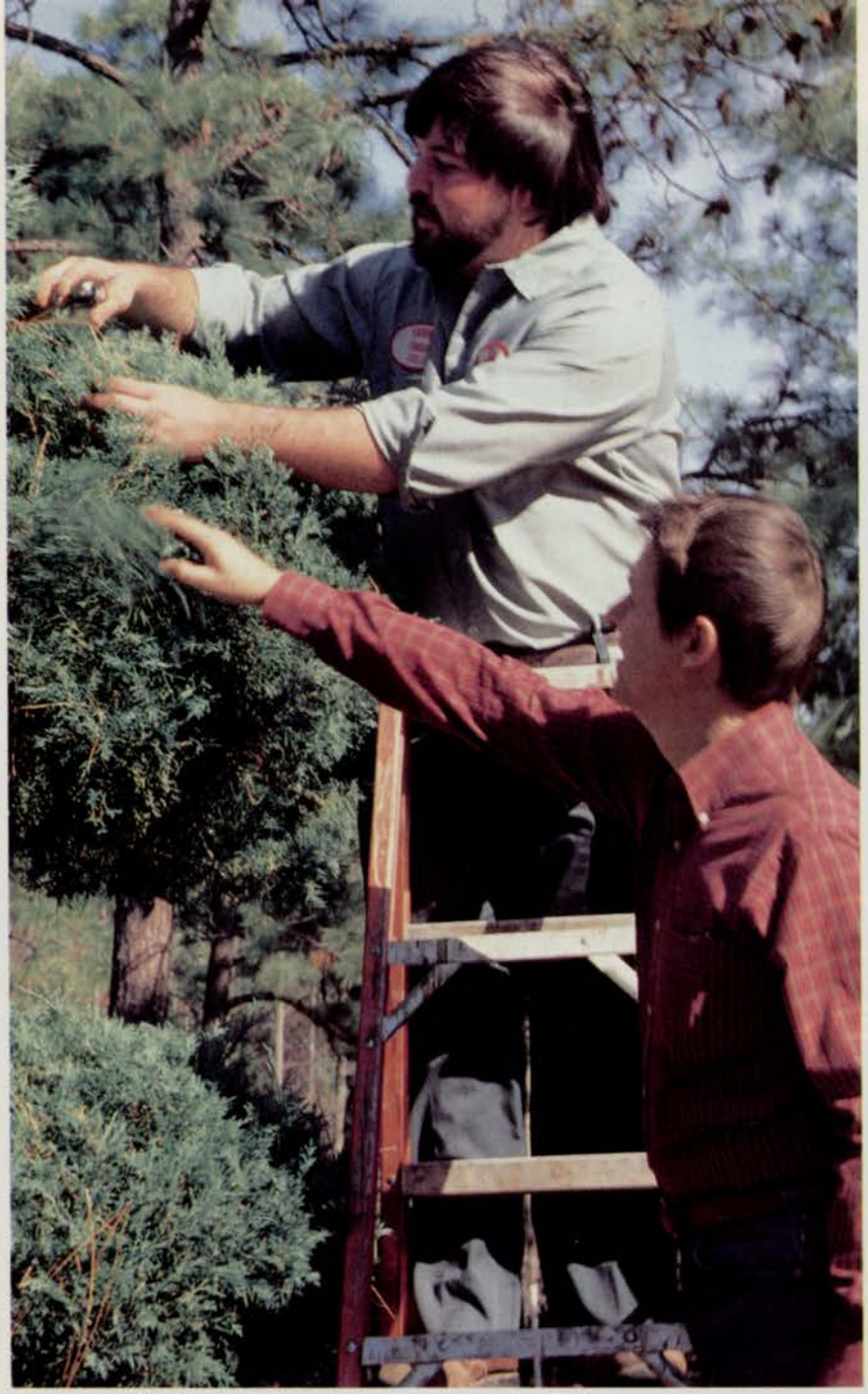
TWO YEAR LIMITED WARRANTY

Gravely's Pro Series is backed by a two year limited warranty. Stop by your Gravely Dealer for all the details. While you're there ask for a free demonstration. Once you see the Pro Series at work, you'll know why — you gotta get a Gravely. For the name of your Gravely Dealer, look in the Yellow Pages.

THE GRAVELY SYSTEM™

Gravely International, Inc., One Gravely Lane, Clemmons, NC 27012, 919/766-4721 TELEX: 5971451 ARGRA

Circle No. 117 on Reader Inquiry Card



Fred Garrett (bottom) *directs one of Sandhill's students in the proper methods of pruning.*

to the School of Horticulture sponsored by the Niagara Falls Parks Commission and to Wisley in England. He then developed his European-style curriculum, which is reworked every two to three years. In 1984, a course on garden center operations was added.

Unlike the ornamental horticulture programs in North Carolina, this unique curriculum has the official title of Landscape Gardening Program, approved by the state in 1984.

Humble beginnings

At Sandhills, Garrett began in a regular classroom with a handful of students. Two years later his department moved into the present facilities which include classrooms, offices, greenhouses, library, and even a small apartment for a student/manager who supervises the greenhouses and other operations during off hours.

Heutte Hall, not formal or fancy, is functional. "I designed the building on a brown paper lunch bag," says Garrett.

Today the landscape gardening center is surrounded by students' projects. Attractive beds have been built and planted, paved walks designed and constructed, large trees moved into place, and irrigation systems planned and installed.

The staff can always come up with another challenge for the students. One major project now under construction is the Sir Walter Raleigh Historical Garden. The idea for this garden evolved from the 400th anniversary celebrations North Carolina staged to commemorate the attempted colonization of Roanoke Island in 1584. One-and-a-half acres were leveled for the project, which is to be an historic replica of an Elizabethan garden. Like the golf course area, the vegetable garden or the large, informal Ebersole holly collection, this totally formal garden will offer valuable and different construction and maintenence experience to the students.

Dirty hands

Varied experience in all phases of landscape gardening is Garrett's goal for his students. They dig the necessary ditches, mix the soil for the greenhouse, work with turf, nursery culture, perennial beds, bedding plants and greenhouses, and prune trees while hanging high above the ground on safety ropes.

The staff can always come up with another challenge for the students.

"I think we're very good pruners," says Martha Simon, a 1985 graduate. "I like the hands-on labs. It's all right there, where we do all the work."

Simon, whose father owns Bluemount Nurseries in Monkton, Md.—a wholesale grass and perennial nursery—started college at the University of Maryland and then went to Sandhills. "I've never regretted the decision. As a woman, I would encourage any other woman to go to Sandhills. We learn how to operate greenhouses, drive tractors, and use soil mixers. Most horticultural courses don't teach those things. Since most employers are still a little sexist, a woman is a step ahead if she can handle all the equipment.

"I also like the intimacy, the close working relationship with the instructors, the teamwork, the valuable contacts."

Contacts are important to Garrett, too. His alumni network stretches around the country. "Every class has five or six students who get into interesting places and do well. This helps with student recruitment today," he says.

The Nation's Biggest & Best Regional Turf Conference

December 2 - 5, 1985
Cincinnati, Ohio

In-depth sessions for:

Lawn Care
Golf Courses
Grounds Maintenance
Athletic Fields

315 Exhibits, Lectures, Workshops

Golf Course

- Estimating Construction Costs
- Developing a Master Plan
- Introducing Ornamental Grasses
- Fungicide Resistance
- C-15 Decline?
- Winter Covers
- Pitfalls of a Superintendent
- Disease Predicting
- Fungicide Update
- Insecticide Update
- Pre and Post Herbicides Update
- Take-All Patch
- Growth Regulators
- Annual Bluegrass Suppression
- Fairway Maintenance
- Fairway Renovation
- Computer and the Superintendent

Grounds and Landscape

- Athletic Fields
- Athletic Field Problems
- Tree Health
- Tree Problems
- Turfgrass Growth Regulators
- Herbicides—Pre and Post Emergence
- Selective Tall Fescue Control
- Core Cultivation Equipment
- Equipment Safety
- Snow Removal and Turf Equipment
- Late Season Fertilization
- Wildflowers and Native Grasses
- Grounds Management
- Fate of Pesticides in the Soil
- Biology of Thatch
- Legislative Acts and Pesticide Use

Lawn Care

- Liquid vs. Dry N
- Insect-Resistant Varieties
- New Pre and Post Herbicides
- Selective Tall Fescue Control
- Growth Regulators for Lawns
- Aeration Equipment
- Late Season Fertilization
- Fungicide Update
- Herbicide Volatility
- Weather
- Understanding Soil Tests
- Fall Pre-emergence Applications
- Difficult-to-Control Broadleafs
- Tree Problems?

Workshops

- Landscape Herbicides
- Diseases & Insects of Ornamentals
- Ring Patch Diseases
- Basic Turf Weed Control
- Irrigation Workshop
- Annual & Perennial Flowers
- Pesticides & Public Relations
- Pesticide Training Sessions

Ohio Turfgrass Foundation
Conference and Show
Cincinnati Convention Center
Cincinnati, Ohio
December 2-5, 1985

Contact: **Dr. John Street**
c/o Ohio Turfgrass Foundation
2021 Coffey Road
Columbus, Ohio 43210
(614) 422-2047

Students *Blain Ritter and Jeff Etheridge work on the back retaining wall for the Sir Walter Raleigh Garden.*

For example, Dale Haney, '72, is responsible for the house plants at the White House. A more recent graduate, Tom Geer, is working on the grounds there today. The horticulturist at Old Salem in Winston-Salem is graduate Phil Page. Peter Hatch first worked there, and then he was asked to move to Monticello. The list goes on and on.

Garrett is also proud of the entrepreneurs among his students. Graduate Ronnie Williams has a thriving business in irrigation installation. Another young man, Pete Gulley, began a local garden center with $150 and now owns a whole block of land in Southern Pines.

"I think this is one of the last fields for young people to get into," Garrett says. "They can take a small amount of money, work hard, and build a clientele—in greenhouse operations, maintenence or garden centers."

He points out that, interestingly enough, starting salaries for his graduates are the same as for graduates of the four-year program at North Carolina State University. "If students want to teach or do research, they must have a four-year degree," Garrett said, "but for jobs in the field, their performance and production here are excellent credentials."

Realizing potential

The emphasis is on work experience. Each student has two areas to maintain—one in the greenhouse, the other outdoors. All this maintenance work is graded regularly.

In addition to classroom and work experience, the students take several trips during their two years at the college, visiting both nurseries and outstanding public and private gardens on the East Coast.

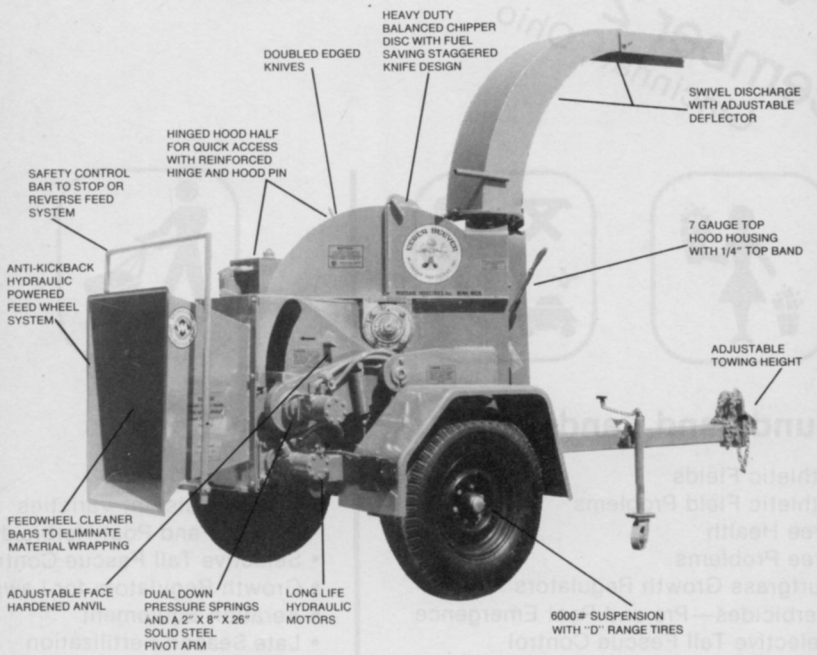
Both Simon and Hoehne want more Southern gardens included in these tours. "I think we're just beginning to realize the potential we have for gardening in the South," says Simon.

Garrett's many contacts at great gardens and nurseries around the country also help when the time comes for each student to spend the final quarter of the 24-month program working in his or her chosen field.

Some might go to the North Carolina Botanical Garden. Others are employed at places like the Mellon Estate in Virginia, Dunbarton Oaks in Washington, D.C., and the Biltmore Estate in Asheville, N.C.

"Any student could say to Fred Garrett, 'I want to work in Timbuktu,' and in half an hour, he would have someone on the phone and have a job lined up there," Hoehne says. **WT&T**

Originality of concept sets the . . .



EEGER BEEVER CHIPPER

STANDARD FOR THE INDUSTRY!

•SAFER
Meets ANSI recommendations

•QUIETER
Less noise exposure

•MORE ECONOMICAL
Change knives in 15 minutes-uses 20 to 30 percent less fuel -easy, low cost maintenance

Innovation has been a tradition with Morbark for more than a quarter of a century. In 1958, we introduced the world's first portable pulpwood debarker. We grew with the industry by always being alert to the needs of our customers. In 1970, we introduced the first portable whole tree chipper that would consume whole trees, branches and all and convert them to uniform dimensional chips in a matter of seconds. The success of the whole tree chipper brought the demand for the "Eeger Beever" brush and whole tree chipper for a market that had struggled for decades with less than adquate tools. The improvements, added efficiency and enhanced economic benefits made available by the disc type whole tree and brush chipper has found an appreciative and receptive clientel. Private tree companies, utilities, contractors and others in the trade have found this to be a dependable and reliable machine.

We are complimented by those who would try to imitate the highest standards of the original. If you compare honestly and carefully weighing feature for feature, you'll find that none can match the excellence of the MORBARK "EEGER BEEVER"! . . . not even the price!

See our display at the Arbor Expo. '85, at the Ohio Center in Columbus, Ohio, December 5-7.

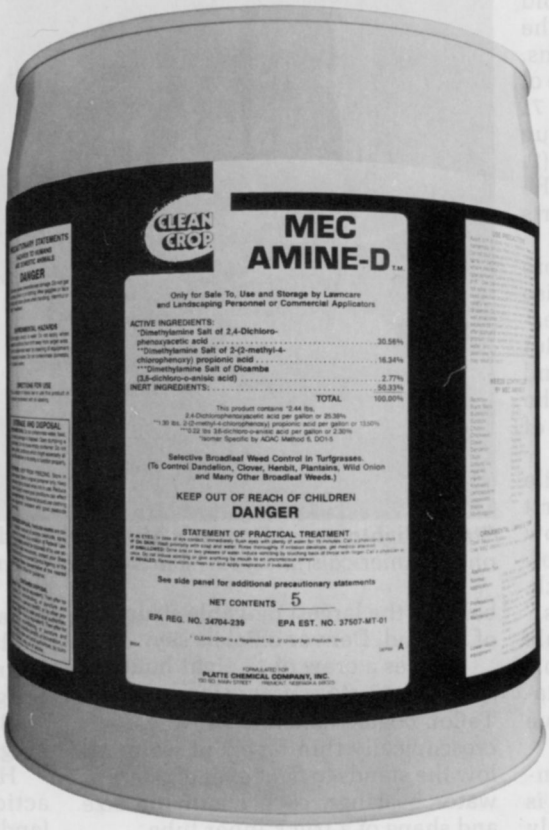
MORBARK INDUSTRIES INC.

MORBARK INDUSTRIES INC.

P.O. Box 1000 • Winn, Michigan 48896 • (517) 866-2381

Circle No. 132 on Reader Inquiry Card

PROVEN
Mec Amine-D™



THE 3-WAY COMPOUND THAT'S 3 WAYS BETTER!

Proven Mec Amine-D from Clean Crop® is the effective Dicamba/ Mecoprop/2,4-D formula you've used and trusted for years. Now it's better because it comes to you more economically, faster, and in more sizes than you ever got it before! Like its predecessor, Mec Amine-D controls tough broadleaf weeds safely and without repeated treatments... it's biodegradable and vapor free after application... it's easy to use, temperature tolerant, stays stable for years. Be Clean Crop Confident with Mec Amine-D.

For more helpful information call 1-800-228-0096, or 1-800-642-TURF in Nebraska.

UAP®

Special Products
P.O. Box 37800
Omaha, NE 68137

Circle No. 151 on Reader Inquiry Card

by Ron Hall, associate editor

Wightman directs Mile High's changes

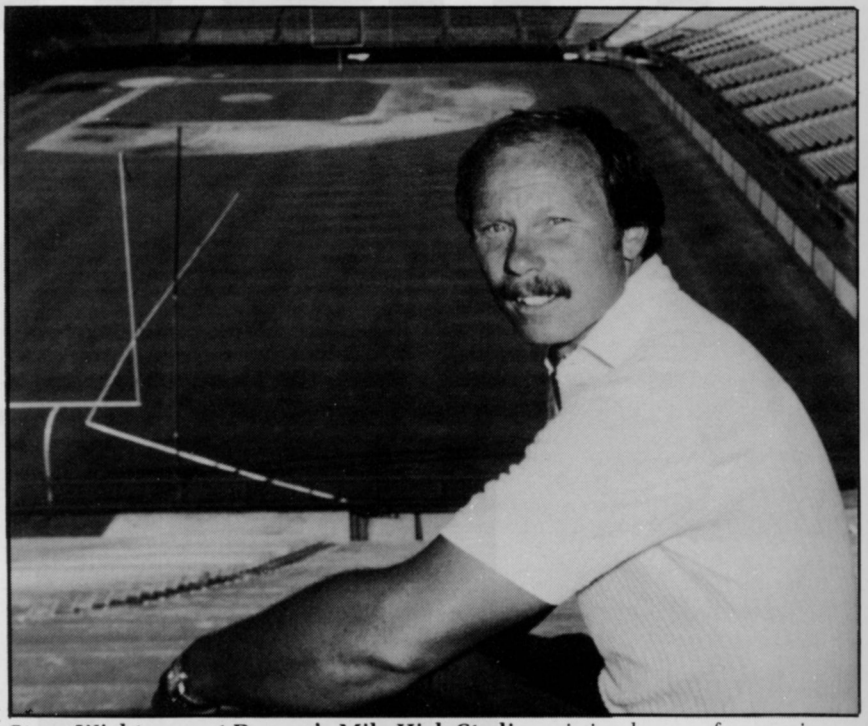
Steve Wightman's job as the chief groundsman at Denver's Mile High Stadium is always changing. That is, he's always changing his turfgrass playing field. One day to accommodate football, the next baseball. Throw in a few concerts.

Wightman, a slender 36-year-old with less hair than he'd want, is the unacknowledged king of conversions.

Consider. Mile High was the site of 121 events in 1985. This included 71 baseball games (the minor league Denver Zephyrs), 21 football games (11 by the NFL Broncos, 10 by the USFL Gold), and the remainder concerts and special events.

Mile High rarely sits vacant more than five days at a stretch. The demise of the USFL Gold franchise this season eases the pressure somewhat. But the facility, owned by the city and county of Denver, and operated by the parks department, will remain one of the busiest stadiums in the nation.

Wightman, who has been at Mile High 10 years, remembers the first conversion. It took two days. It's now down to 8½ hours. That's from football's final gun to baseball's first pitch.



Steve Wightman, at Denver's Mile High Stadium, *is in charge of preparing one of America's finest turf fields for 121 events annually.*

"I think we outsmarted ourselves," says Wightman. "Now they schedule events one day apart and not two." This past season the Mile High Stadium crew whisked through five overnight conversions.

Two factors make these conversions remarkable. First, the field is resodded (Kentucky bluegrass) only twice annually, in March and October. Mile High boasts a Prescription Athletic Turf (P.A.T.) playing surface with excellent drainage and sub-surface irrigation. "P.A.T. saves the football field," says Wightman.

Also reducing the need for resodding is the use of Warren's Terracover, a needle-punched polyester blanket, over the grass to protect it from the feet, popcorn, and suntan lotion of concert-goers. For football, a 400-foot-long strip of Terracover protects grass in the pedestrian walkway in front of the east grandstand. This strip, a walkway for football games, is left field for baseball.

And that's the second amazing aspect of Wightman's conversions. The entire east grandstand behind the walkway—a nine-million-pound, 22,000-seat structure—can be moved 145 feet. In the forward position it provides sideline viewing for football; moved back, left field seating for baseball. It's the largest movable structure of its kind, Denver officials say.

It takes a crew of 15 eight hours to slide the 13-story grandstand over 18 Teflon-coated concrete runways. Microscopically thin layers of water allow the stands to *float* over clusters of water bearings, each about the size and shape of a truck inner tube.

When the grandstand is back in the baseball position, its concrete tracks are covered with four-inch-deep steel pans of sod to complete the all-grass playing field. An experienced tow motor operator lifts these turf-covered pans into place in about three hours.

Meanwhile, Wightman's nine-man grounds crew babies the turfgrass and prepares the field for baseball, football, or a concert. Much of this work is "hand work," says Wightman, because of the presence of fragile heat cables six inches below the grass. These cables keep the turf playable and footing reliable for the Broncos through December.

Now that the USFL Denver Gold is history, will the pace at Mile High slow?

Probably not. Denver is one of a handful of cities lusting for a major League baseball franchise. Insiders feel it's a cinch. . .someday. The now-renamed Denver Bears baseball team (Mile High was originally known as Bear Stadium) used to set the minor League attendance records on fire.

But, even without a team in the biggies, Denver vibrates.

How's this for a single weekend of action? Huey Lewis and the News (and thousands of teeny boopers) invade Red Rocks. On the other side of town, Cherry Hill swells with spectators for the PGA Championship. Downtown the international Coors bicycle race attracts thousands more.

And the Broncos are at Mile High.

Wightman likes this pace, and he still finds time to help direct the fledgling Sports Turf Managers Association. In 1984 that group honored him with its highest honor, the "Lone Ranger" award, for his work at Mile High. He's working to change the grounds manager's lot for the better.

What else would the ever-changing Wightman change if he could?

Says Wightman, "there is so much inconsistency with the construction and maintenance of natural grass fields, I think there should be some standards." These written guidelines would provide maintenance help for sports turf managers from the school yard to the professional level, the slender groundsman feels. **WT&T**

Agile as a cat

Jacobsen Turfcat II gives you all the moves for quality cutting.

Get the agile machine with the moves of a cat. Get a fast-moving, clean-cutting Jacobsen Turfcat II*.

Featuring smooth power steering, four-wheel wide-track stability, and hydrostatic traction. A touch with your right foot delivers variable speed for precise maneuverability . . . the left pedal raises or lowers implements hydraulically for easy transport.

The heart of the Turfcat II is a rugged 23-hp, 51.6 cu. in., 4-cylinder, liquid-cooled Continental gasoline engine. And our special dual-screened radiator assures cleaner, cooler engine operation. With a warning system to alert the operator when screens need cleaning—for longer engine life.

Superior rotary-deck performance delivers a quality cut on all types of turf. And, the Turfcat's mechanical or hydraulic PTO drive, with a wide implement selection, gives you a year 'round system.

For speed and maneuverability, pounce on the Turfcat II. It's agile as a cat.

Jacobsen Division of Textron Inc.,
1721 Packard Avenue,
Racine, WI 53403.

*Choose from five models, diesel and gasoline, with three-wheel or four-wheel configurations and a variety of deck sizes.

JACOBSEN
TEXTRON
Jacobsen Division of Textron Inc.

Engineered from the ground up.

©Jacobsen Division of Textron Inc. 1985 J-95

Circle No. 121 on Reader Inquiry Card

NEW SHORT-STOP.™ NOTH
TO THE WAY IT KEEPS G

At last, there's an effective, dependable way to cut the high cost of maintenance along roadsides, utility rights-of-way and wherever mowing is done.

Stauffer introduces new Short-Stop™ grass growth regulator—the safe, but potent way to stop seed head development and drastically cut both the needs and cost of mowing.

Count On Short-Stop, Rain Or Shine.

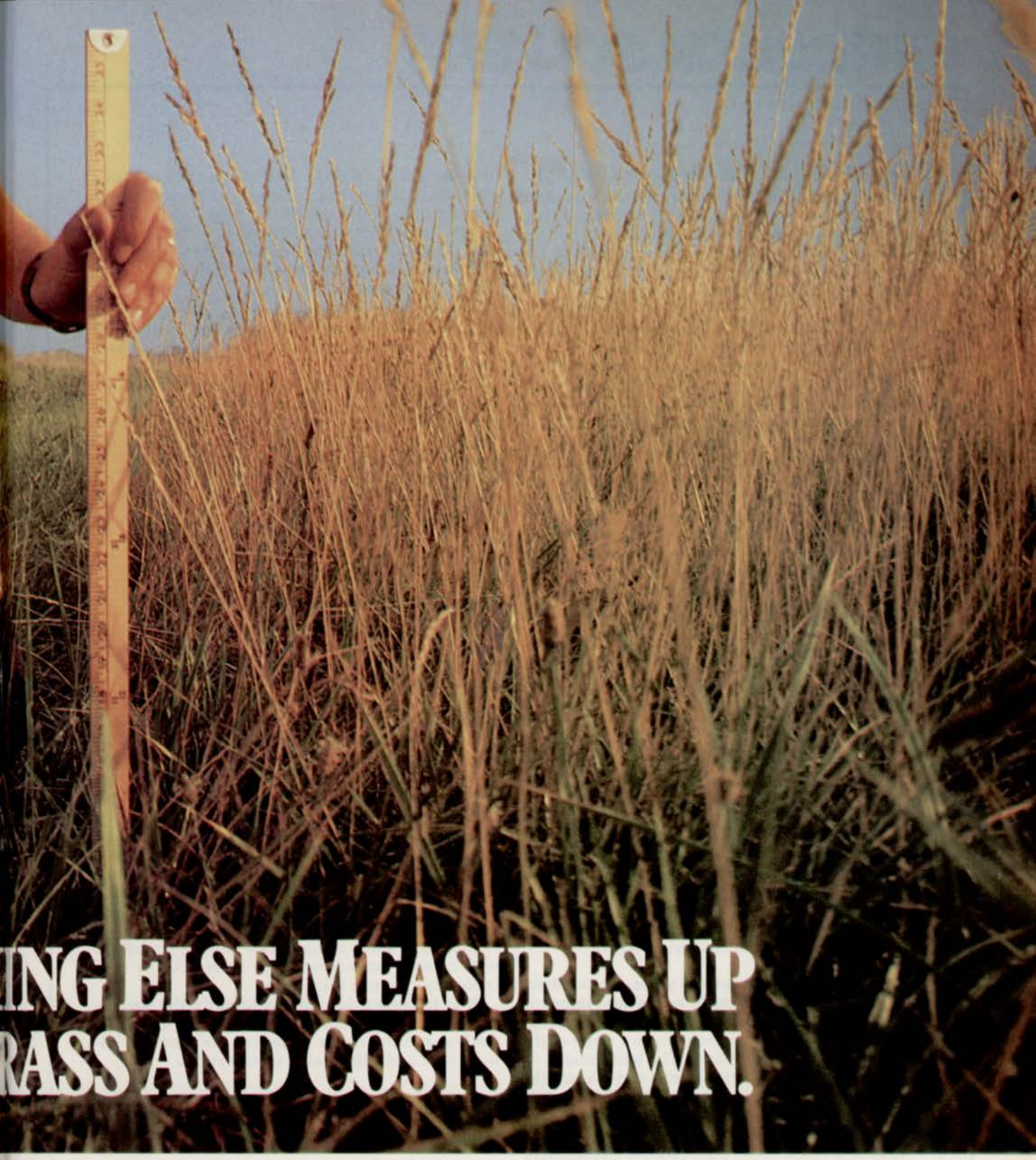
Unlike other grass growth regulators, Short-Stop can be applied in dry or wet weather, or even during rainfall, without affecting its performance. So your crews won't apply with one eye on the sky.

And, Short-Stop has a longer "window of application"—up to six weeks—while others allow only two to three.

Overall, Short-Stop is a giant step forward in dependability.

Lower The High Risks Of Mowing.

One application of Short-Stop™ can eliminate up to five mowings. Five times when your crews won't have to mow in



high traffic areas, on dangerously steep grades, or in areas of poor visibility.

You'll eliminate the danger of trash thrown by mower blades and the need for erosion-causing vegetation killers around guardrails, signs and landscaping.

Short-Stop™ Works Wherever Tall Fescue Is Found.

Short-Stop can be used to improve the appearance and eliminate fire hazards in all sorts of utility turf areas — industrial parks, schools, airports, parks, cemeteries, golf course roughs, and dam spillways.

Short-Stop is available in granular formulations for quick, easy spreading on even hard-to-mow areas.

Grass Is Greener On The Short-Stop™ Side.

In testing, researchers have even noted a better color in Short-Stop treated grass than in untreated fescue. A pleasant side-effect.

But more important, you'll note a much greener color to your maintenance budget with Short-Stop. Especially when you can use mowing crews to accomplish other jobs instead.

For more information, contact Stauffer Chemical Company, Specialty Products, APD, Westport, Connecticut 06881.

Always follow label directions carefully.

SHORT-STOP™ Stauffer CHEMICALS

Grass Growth Regulator

STOPS SEED HEADS SHORT

Circle No. 141 on Reader Inquiry Card

PROBLEM SOLVERS

by **Balakrishna Rao**, Ph.D

Winterization via deep watering

Problem: *Because of the problem we had experienced last winter, we would like to consider winterizing valuable ornamental plants, particularly evergreens, by deep watering. Is there a real advantage from this practice? If so, when should we do it? I'd appreciate your comments. (Michigan)*

Solution: Watering the woody plants to reduce winter injury, particularly evergreens, prior to soil freeze-up to replace water loss by foliage during winter is a good practice and a valid recommendation. Reports from the University of Minnesota indicate that plants subjected to water stress during late August and early September had lower water content in the plant tissue. However, the water content decreased as the temperature dropped and was found to be equal in stressed plants as well as plants maintained at optimum soil moisture.

Watering the stressed plants during late August, early September or in November prior to soil freeze-up did not increase the water content in the plant tissue. These plants showed considerable winter injury of foliage than the plants maintained as optimum soil moisture.

Therefore, fall watering following stress from dry weather in late summer and early fall has little advantage. Based on these findings to prevent injury, the plants should be watered before water stress becomes severe.

The best time to prune

Problem: *In a number of our clients' properties, the hedges with deciduous plants, like forsythia, privet or Spirea, show extensive winter kill and thinning. It looks pretty bad. When would be the best time to prune? Is there some way we can maintain decent looking hedges without going through the re-planting process? Appreciate your comments. (Ohio)*

Solution: Over the past several years, winters have been very severe and we have seen winter injury on a number of sensitive plants. The deciduous hedge plants, like the ones you mention, are some of the more seriously affected plants. The best thing to do with winter injured plants is to wait and see how the plant will recover during the season. Then, lightly fertilize and water the plant to encourage new shoot development.

In general, most hedge plants should be pruned in such a way that the hedge is broader at the base than at the top. To have a desirably shaped hedge, it is important to start pruning and shaping when the plants are very small and continue throughout the life of the plants. Depending upon the rate of growth, it may be necessary to prune them two or three times from April through September.

Often, hedges may become too thin without much leaves, particularly from the bottom up. This could be due to several factors such as winter injury or simply that they are getting old. If this happens with cane-type plants such as the three mentioned above, cut the hedge back to ground level. The new growth develops from the cut stubs, begin shaping the hedge. Remember to shape broader at the base than at the top. This type of pruning is called rejuvenation and should be done in late winter or early spring before new growth starts.

Plants liked winged euonymus or viburnum should not be cut back at once as discussed above. Instead, they respond better to a gradual cut-back method.

During the first year, remove one-third of the oldest branches near ground level to encourage new growth. The second year, use this thinning technique to cut back an additional one-third of the old growth. This will promote more branching. The third year, remove the remaining old stems. This method of gradual cut-back will renew hedge plants like euonymus or viburnum.

No general programs

Problem: *Is there a general herbicide and fungicide preventative maintenance program for landscape contractors to use on all clients' turf and plants? (Pennsylvania)*

Solution: No, there are none. These materials are designed to do certain specific functions in the plant health management practice. Each product has its own strengths and weaknesses.

For example, selective herbicides, such as pre-emergent materials, are designed and used primarily for controlling annual grasses as they emerge, while post-emergent materials, like Trimec containing 2, 4-D, MCPP and dicamba, are used for broadleaf weed control. Non-selective herbicides such as Roundup are designed to be used as a total vegetation management tool to get rid of many different kinds of plants.

Similarly, some diseases can only be controlled with contact fungicides, while others can be controlled by systemic fungicides.

It is important to properly identify the specific pest problem and then select the proper materials, method and timing for managing the problem. Always read and follow label specifications.

Balakrishna Rao is Director of Lawn Care Technical Resources for Davey Tree Expert Co., Kent, OH.

Questions should be mailed to Problem Solver, Weeds Trees & Turf, 7500 Old Oak Boulevard, Cleveland, Ohio 44130. Please allow 2-3 months for an answer to appear in the magazine.

HAHN MULTI-PRO 44, IT WORKS. AND WORKS... AND WORKS...

Greens or fairways . . . the Multi-Pro 44 with its big high flotation tire to protect your turf, converts in minutes to a Sprayer, Spreader, Aerifier or Utility Bed. Designed for easy on, easy off switching and year 'round service.

This "crew" should be working for you

the sprayer . . .
160 gal. poly tank, 3-section boom for 18-1/2 ft. coverage. Spray with 1, 2, or all 3 booms. Fingertip control of all spray system functions.

the aerifier . . .
Hydraulically controlled from operator's position. Cultivates a full 42 inch width. Cleanly penetrates to 3 inches, depending on soil conditions. Optional Slicing Blades to open the soil with a minimum of turf disturbance.

the spreader . . .
Precise rate settings for a uniform pattern. Top dress sand in 12 to 20 ft. swath, apply seed, fertilizer and lime 20 to 40 ft. Up to 500 lbs. per minute.

the utility truck bed . . .
Reinforced steel, 1500 lbs. capacity. Converts to dump bed with addition of Hydraulic Package.

Hahn TURF PRODUCTS DIVISION
1625 N. Garvin Street, Evansville, Indiana 47711-4596

Are we confident of our quality? . . . our **ONE YEAR LIMITED WARRANTY** says it all.

For the name of your nearest dealer, or free brochure: **CALL TOLL FREE 800/457-HAHN**

Building self-propelled sprayers since 1948. In Indiana, Call Collect (812) 428-2025 Telex: 27-8429

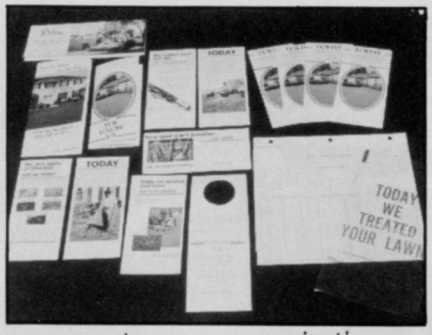
Circle No. 118 on Reader Inquiry Card

Brochures available through Lesco Inc.

A selection of printed forms and brochures designed for use by lawn care companies is now available from Lesco Inc.

Included are self-mailers designed for mass mailings to potential customers, application follow-up leave-behinds, and literature to increase extra-service business.

Forms designed to simplify and im-



prove customer communication are also available, as well as forms for in-house record-keeping and inventory control.

Doorhanger plastic bags and envelopes can also be obtained.

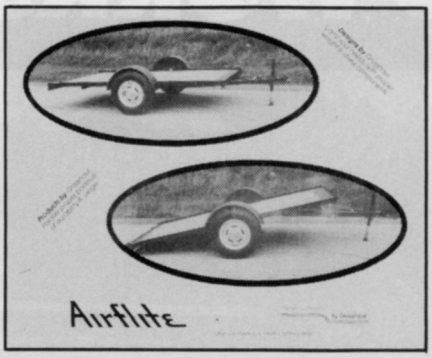
Circle 191 on Reader Inquiry Card

Airflight tilt trailers move gear the simply way

"Stay Tilt" is one of the features on Airflight Inc.'s new tilt trailer. This automatic hold-down latch eases loading of equipments.

The trailer comes in 5- and 6-foot-wide models and is 10 feet in length. It has a 2,900-lbs. capacity. Stake pockets are located front, side, and rear. Optional city stake sides are available.

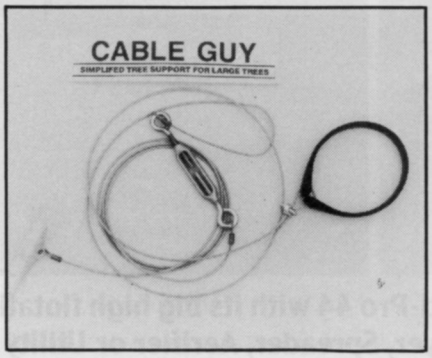
Airflight also offers tandem (no tilt) models up to 20 feet in length.



Circle No. 192 on Reader Inquiry Card

Alpine unveils cabling system for large trees

Cable Guy, marketed by Alpine Nursery, is a packaged cabling system for the support of trees up to six inches in caliper.



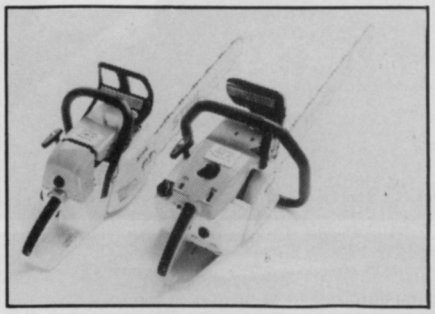
It is comprised of a 12-foot length of plastic-coated cable, one 15-inch pliable rubber collar and a Model 68 Duckbill Earth Anchor. It is packaged in sets of three. The Model 3000 comes without turnbuckles, the Model 3001 with turnbuckles.

Circle No. 193 on Reader Inquiry Card

Stihl expands Magnum line of power saws

Stihl adds the 056 Magnum II and the 038 Magnum to its line. The 056 is the larger of the two at 5.7 cubic inches.

This big-power production saw accepts bar lengths from 16 up to 32 inches in both solid tip and Rollomatic versions.



It features a front-mounted, fire-safe muffler, and a new cylinder with larger porting.

A high power-to-weight ratio is the 4.4-cubic-inch 038 Magnum's strength.

Both models come with improved electronic ignitions and gear-driven, automatic adjustable oilers. Quickstop inertia chain brake system is a built-in safety feature of Stihl saws.

Circle 194 on Reader Service Card

THE ALL AMERICAN 5 -

Loaded with features, the newest generation of highly maneuverable Power Quint mowers virtually guarantee you decades of the finest turf care with even small PTO-equipped tractors. Adjustable reels work against oversized bedknives in individual cutting units that truly float over uneven terrain. And when the job's finished, this 11½' unit folds up its outboard reels automatically for easy trailering and storage.

★ ★ ★
NATIONAL MOWER COMPANY

EVENTS

NOVEMBER

Associated Landscape Contractors of America/Landscape Management Division Conference, Nov. 10-12, Fairmont Hotel, Dallas, Tex. Contact Ann McClure, ALCA, 405 N. Washington St., Falls Church, Va. 22046. (703) 241-4004.

Carolina Shade Tree Conference, Nov. 12-13, Riverbanks Zoo Education Center, Columbia, S.C. Contact Dr. Donald L. Ham, Dept. of Forestry, Clemson University, Clemson, SC 29634. (803) 656-2478.

DECEMBER

Ohio Turfgrass Conference & Show, Dec. 2-5, Cincinnati Convention Exposition Center. Contact Dr. John Street, 2021 Coffey Rd., Columbus, Ohio 43210. (614) 422-2047.

New Jersey Turfgrass Expo '85, Dec. 2-5, Resorts International Hotel, Atlantic City, N.J. Contact Dr. Henry W. Indyk, Soils and Crops Dept., Cook College, P.O. Box 231, New Brunswick, N.J. 08903. (201) 932-9453.

North Central Weed Control Conference, Dec. 10-12, Clarion Hotel, St. Louis, Mo. Contact Loyd Way, USDA-ARS, Agronomy Department University of Illinois, 1102 South Goodwin, Urbana, Ill. 61801.

Haul 500 lbs. – EASILY

"One of the best equipment values we've found in recent years." *L. Nichols, Park Superintendent Tucson Parks and Recreation Department*

Ideal utility truck for factory, construction site, golf course, marina and parks. Spacious dump bed hauls dirt, rocks, supplies, spare parts, people, whatever – down narrow aisles, over mud, rough terrain. Built tough. Available in economical basic models or customized to your specific work needs; single units or fleets. Comes with these features:

- **4-wheel models • Electric start • Steering wheel/foot pedals • Reverse gear • Automatic transmission • Big flotation tires • Rear, dual disc hydraulic brakes • Dump bed (extends over 4 ft. long) • Accessories, including steel cab, extra seats, flatbed**

Dealerships available. **CALL TOLL FREE 1-800-253-1030**
(In Michigan, 616-849-3400)

For **FREE** catalog, contact:
Carl Heald, Inc.
Dept. VHM, P.O. Box 1148
Benton Harbor, MI 49022-1148

Circle No. 119 on Reader Inquiry Card

Olathe "CLEAN SWEEP"
TURF SWEEPERS

MODEL 54 HIGH LIFT LARGE AREA SWEEPER SWEEPS A 5 FT. SWATH AND COLLECTS 3 CUBIC YARDS OF LEAVES, GRASS AND DEBRIS.
P.T.O. and Tow Type Available

Send for a free brochure.

MAKE A "CLEAN SWEEP" in '85 with an Olathe Sweeper.

OLATHE MANUFACTURING, INC. 800-255-6438
100 INDUSTRIAL PARKWAY, INDUSTRIAL AIRPORT, KS 66031 913-782-4396

Circle No. 135 on Reader Inquiry Card

GANG CREW CUTTER

For all the details and a free demonstration, call or write today for the name of the dealer nearest you. National Mower Company, 700 Raymond Ave. S., St. Paul, MN 55114, 612/646-4079.

copyright 1986, National Mower Co.

CLASSIFIEDS

RATES: $1.00 per word (minimum charge, $25). Bold face words or words in all capital letters charged at $1.25 per word. Boxed or display ads: $85 per column inch-1x (one inch minimum); $80-3x; $75-6x; $70-12x. Agency commissions will be given only when camera-ready art is provided by agency. For ads using blind box number, add $5 to total cost of ad. Send ad copy with payment to Dawn Nilsen, WEEDS TREES & TURF, 1 East First Street, Duluth, MN 55802 or call 218-723-9200.

BOX NUMBER REPLIES: Mail box number replies to: WEEDS TREES & TURF, Classified Ad Department, 120 W. 2nd St., Duluth, MN 55802. Please include box number in address.

BUSINESS OPPORTUNITIES

WANT TO BUY OR SELL a golf course? Exclusively golf course transactions and appraisals. Ask for our catalog. McKay Golf and Country Club Properties, 15485 N. East Street, Lansing, Michigan 48906. Phone (517) 484-7726. TF

Commercial landscape maintenance. Over $100,000 in sales. Very profitable to owner/operator. Excellent terms. "Landscape", Box 1803, Eugene, OR 97740. 11/85

MADE IN VERMONT. Quality apparel mfg., village dry goods store located in century old historical district. Sales $1,000,000. Price $610,000 with $175,000 down. Contact Mike Shonstrom, Country Business, Inc., Burlington, VT. (802)863-3459. 11/85

"SCENIC SETTINGS"—T.M. NEW LANDSCAPE SERVICE—MARKETING FRANCHISE CONCEPT—Seeking interested Landscapers and major investors for regional allocation. Write WTT Box 357. 12/85

ORKIN LAWN CARE

Wants to acquire lawn care/pest control companies doing $1,000,000 or more annual revenue. Sell us your business. Stay and grow with us if you wish. Reply to: Dick Lyon (404) 888-2165. 11/85

HELP WANTED

Construction supervisor for golf and large turf irrigation jobs. Dynamic, young company seeking conscientious, hard driving individual with solid background. Starting pay mid 20's, expenses, benefits. Send resume to Richard Embry & Company, Inc., P.O. Box 392, Shelbyville, Kentucky 40065. TF

LANDSCAPE MAINTENANCE FOREMAN to do quality oriented residential landscaping. Associate degree or comparable experience. Must be motivated and have working knowledge of turf and ornamentals. Mechanical ability desirable. Good compensation program. Good opportunity with growing company. Schrauf Landscaping, 35482 Chestnut Ridge, North Ridgeville, Ohio 44039. 216/327-8873. 12/85

SPRAY TECHNICIAN—Landscape Maintenance company seeks a certified applicator to help us grow. Experience and license needed. Also must have a current knowledge of chemicals and fertilizers. Salary based upon experience. Call or write: Bill James, The Ground Crew, Inc., 3301 Pleasant Valley Lane, Arlington, TX 76015. (817)467-2525. 12/85

LANDSCAPE IRRIGATOR—Must be able to do repairs on existing systems as well as refurbishments. Two years experience in the field and knowledge of different type systems is necessary. Salary is negotiable. Please contact: Bill James, The Ground Crew, Inc., 3301 Pleasant Valley Lane, Arlington, TX 76015 or call (817)467-2525. 12/85

HORTICULTURIST: for the Minot Park District, Minot, North Dakota. Shall have degree in Horticulture with two years experience in the field. Salary range $1,246.00 - $1,613.00 per month. Send resume to Minot Park District, Box 538, Minot, North Dakota 58702-0538. 11/85

SUPERINTENDENT-City of Houston—The City of Houston is accepting applications for the position of Superintendent in the Parks and Recreation Department, Resource Management. This individual will plan, manage and administer the City's Urban Forestry and Horticulture Programs. A Bachelor's Degree in Forestry or related field plus six (6) years related experience. Salary low 30's. Send resume to the City of Houston, Personnel Department, Attn: VM-25, P.O. Box 1562, Houston, Texas 77251. 11/85

LANDSCAPE MAINTENANCE MANAGER—Established land development company with large operation seeks individual with horticultural degree to manage and maintain existing and future development. Must have minimum three years prior experience, preferably in Southwestern Sun Belt. Please send resume to: P. O. Box 1946, El Paso, Texas 79950. ATTN: A. L. Smith. 11/85

Landscape/irrigation designer - experienced, self starting individual desired for landscape contracting firm. Sales and estimating ability are also a must. Please send resume including education, experience, salary history and a sample of previous designs to: Alpine Gardens, 1958 Balsam Avenue, Greeley, CO 80631. 11/85

Salesperson for Irrigation and Maintenance Division of a Design/Build landscape firm located in Monroe County (Rochester), New York. Must have working knowledge of underground systems and be able to design and sell. Salary and commission negotiable based on ability and experience. Send resume to WTT Box 370. 11/85

Salesperson for Design/Build and Maintenance landscape firm in Monroe County (Rochester), New York. Experience required. Must have knowledge of zone 5 and 6 plant material. Salary and commission negotiable based on design and sales ability. Send resume to WTT Box 371. 11/85

HELP WANTED—Aggressive landscape company has immediate opening for General Manager/Area Supervisor for Landscape Maintenance division. Experience required in managing people, business administration, sales and estimating. Permananet position with benefits. Salary commensurate with experience. Send resume to Mickey Strauss, American Landscape Maintenance, 7949 Deering Avenue, Canoga Park, California 91304. 11/85

LAWN MEDIC, SERVICE TECHNICIAN: Full time positions. Lawn care, landscape or horticulture experience preferred. Competitive salary and fringe benefits. Call 1-3 pm (919) 724-7075 or NC only 1-800-822-3224. 12/85

SALES REPS—Tuflex Manufacturing Company, a leader in the fiberglass tank industry is establishing a rep program and seeks sales reps with established lawn and grounds care accounts for national expansion of its product line. Call 1-800-327-9005 or send resume to Tuflex Mfg. Co., 1406 SW 8th Street, Pompano Beach, FL 33317. 11/85

SALES REPRESENTATIVE—Wanted to represent line of roofing systems and roofing services. Experienced in single plys and B.U.R. preferred. Proven sales ability essential. Apply to Penroc Company, Box 252, Harleysville, PA 19438. 12/85

LANDSCAPE TURF SPECIALIST—Expanding landscape maintenance firm in Dallas area seeks experienced, knowledgeable individual licensed in ornamental pesticide applications. Serious opportunity for serious individual. Competitive salary plus benefits and bonus incentives. Send resume to include details of experience and salary requirements in care of WTT Box 351. 1/86

LANDSCAPE IRRIGATION SPECIALIST—Several openings for individuals qualified in total irrigation repair of major systems for Dallas area landscape maintenance firm. License helpful but not required. Majority of work on commercial properties. Salary commensurate with experience. Many benefits plus bonus opportunities. Send resume with complete experience background and salary requirements in care of WTT Box 352. 12/85

LANDSCAPE MAINTENANCE SALES—Positions available in sales with one of Dallas/Fort Worth's leading landscape maintenance companies. Respondents must have experience in landscape maintenance or related field and comprehensive sales background. We're looking for personable, ambitious and self-motivated people. Please send resume with salary requirements in care of WTT Box 350. 1/86

LANDSCAPE MAINTENANCE FIELD SUPERVISOR—Great opportunity available with large, quickly expanding firm in Dallas area. Must have landscape experience and technical knowledge in order to qualify. Excellent salary plus benefits and bonus incentive programs. Send resume describing pertinent experience and salary requirements in care of WTT Box 353. 1/86

Foreman/Crew leader/Climbers needed for our growing full line tree service. Full benefits, year 'round work for right person. Must have climbing ability. Long term employment potential with advancement possibilities. Metropolitan Chicago Area. Equal opportunity employer. Please send resume and salary requirements to: WTT Box 356. 12/85

Arborist wanted for sales, supervision, and diagnosis. Must have two years experience or related education to join our sales/management team. We are an aggressive, growth oriented full service Arborist company in the Chicago-land area. Full benefits, year 'round work for the right person, profit sharing, etc. Competitive salary with commission and bonus potential dependent upon experience and performance. Equal opportunity employer. Please send resume and salary history/requirements to: WTT Box 355. 12/85

Immediate opening for experienced Landscape Foreman, (at least 5 years) who can do the usual reading of plans, working with the men, be personable with clients, have enough hort to property plant and an eye for neatness and efficiency. We do residential work only. Send resume to Dennis Anderson & Wife, Inc., P.O. Box 702, Barrington, IL 60010. 12/85

USED EQUIPMENT

1978 MITTS & MERRIL 12" BRUSH CHIPPER - excellent condition - $6500.00 Firm. Call (313) 391-0030. 11/85

Vermeer 1560 Stumper, Fresh engine, works well. Wisconsin Tree Expert Co., 3808 Sell Street, Wausau, WI 54401. Best Offer. 12/85

Sprayer, excellent condition, split tank, (750 gal. & 250 gal.) with Meyer Centrifugal pump. Sprayer is mounted on deck and is ready for installation on truck. Tank is manufactured by "Professional Turf"—ready for turf use or can be easily converted to tree and shrub use. $1,400. Call (616) 669-0500 or write to: 2814 Barry, Hudsonville, MI 49426. 12/85

USED SPYDER—Good condition, $7,900. Green Valley Turf Farms, Box 163, Canfield, OH. Tel. 216-533-3354. 12/85

1979, 1000 gallon bikini spray tank and hose reel. P.T.O. Pump excellent condition. Call (313) 757-5330. 12/85

Woodsplitter, hydraulic 1200 P.S.I., splits two-ways, logs to 30" long, 3 phase electric 230/460. Its a Hoss. $2,000.00. Newport News, VA. 804-874-7335. 12/85

TREE EQUIPMENT
USED-RECONDITIONED-NEW

Brush Chippers, Tree & Turf Sprayers
Bucket Trucks, Stump Grinders

For the Best Price, Service & Delivery
ESSCO **(516) 226-5104**
12/85

FOR SALE—Skid Steer Loader L-35 New Holland. Hydrostatic drive. 3,500# lift, fair tires, new engine at 500 hours. Reliable machine. Will deliver or can ship anywhere. Call Jim (406) 587-4858. Springhill Nursery, Bozeman, Montana. 12/85

1970 Nunes Sod Harvester. Picks Up Only. Good Condition With Spare Parts. $8,500. Ryan Sod Cutter, 50 Hours, Like New, $2,000. 2—Ryan Sod Cutters, $1,200 and $900 Each. Turf Grass Sod, (201) 938-5000. 12/85

Toro Turf Pro 84, 23 H.P. Kohler Engine. Like New with 91 hours, 7 blade reels, $7,000.00. R & R Lawn Service, Martins Creek PA (215) 252-5046. 12/85

John Deere 850, 6 foot mower, 5 foot tiller. Excellent condition. 131 hours. Call 312-393-9112. 12/85

For Sale: Weed Spray Hose, 500', 3/8" Synflex never used, $100.00. Salsco Core Aerator, 30", 5 H.P., IC. $1,600. Turfgard Company, P.O. Box 618, Troy, OH 45373. 1-513-339-3835. 12/85

Hydroseeder 1,000 gallon 1976 Bowie, skid mounted. Must sell, call for price. (513)667-1346. 12/85

Vermeer Model 10 Stump Cutter $4,500.00. 16" Mitts and Merril Chipper $4,500.00. Both in A-1 condition. Call (614)753-3628 or write Altier & Maccombs Complete Tree Service, Inc., P.O. Box 396, Nelsonville, OH 45764. 12/85

Toro Roughmasters Mower, 7 gang pull type, good condition, $3,000.00 firm. Also 3 gang Jake's, like new $1,250.00 firm. 313-653-5695. 12/85

1974 Jacobsen F-10 mowing tractor 7-gang hydraulic powered, low operating hours, good working condition. $7,000 or best offer. Call: Mr. McCarthy, (201)769-6058. 12/85

For Sale: Jacobsen Sod Cutter with automatic cut-off attachments, 14 HP Kohler engine (almost new) electric start. $2,500. (601)378-2006, Route 2, Box J-9, Hollandale, MS 38748. 12/85

SPRAY TRUCKS—4 units 1977 Chev. C50 with 800 gal. tanks, hydraulic pump, reel and agitation system, ready to spray. $5,000 each. 1 unit 1977 Ford F-750 with 1,500 gal. tank. Bean 20-20 pump, 2 Hannay electric reels, ready to spray, $10,000. Call 401-737-4611. 12/85

FOR SALE—1983 Harley Rock Picker, 12' Rock Windrower in Phoenix, Arizona—$17,500, both units. Gundersons, Inc., Rapid City, SD 605-343-6530. 12/85

For Sale—1982 300 gallon Myers spray rig. 25 GPM pump, 16 H.P. Kohler electic start engine, less than 30 hours use, kept in storage—$4,200.00 617-686-5904. 12/85

USED EQUIPMENT—JACOBSEN MODEL 524 AERATOR AND SEEDER USED 5 HRS. LIKE NEW CALL: HEADINGS, INC., (717)898-8591. 12/85

MEYER Z-52 ZOYSIA—Registered Stock For Sale—Contact: Milberger Turf Farms Co., P.O. Box 229, Bay City, TX 77414. Call (409)245-8175. 12/85

SATAKE 6" SHELLER—Paddy Husker—New—Best offer. Contact: Milberger Turf Farms Co., P.O. Box 229, Bay City, TX 77414. Call (409)245-8175. 12/85

Good used 4-wheel drive forklift with 2-axle custom trailer to haul it. Ideal for sod unloading at job site $6,000 for both units, 2-axle 16 ft. flat bed trailer, $1,000.00. (303)683-2262. 12/85

REMO 1015 SIFTER—w/Extra Set of Frames—New—Best Offer—Contact: Milberger Turf Farms Co., Box 229, Bay City, TX 77414. Call (409) 245-8175. 12/85

SURPLUS EQUIPMENT—Harley Model A, high-lift rockpicker with 1" tumbler, screen and 20 ft. rake. Excellent condition. Call 306-731-3412, or write to: Box 40, Craven, Sask. SOG OWO. 12/85

1979 TORO HTM 175. 7 gang hydraulic fairway mower, diesel. Only 3 northern seasons, 1,200 hours, reels ground, sharp, ready to go. $22,000 or offer. (313)855-0700. 12/85

For Sale: 1978 Princeton Tow Boy Harvester. 20 inch machine, excellent condition, lots of new parts. $7,000. 609-451-0424. 12/85

NEW and USED EQUIPMENT — Asplundh, Hi Ranger and Lift-all forestry bucket trucks, Chipmore wood chippers. Mirk, Inc., (216) 669-3567, (216) 669-3562, 7629 Chippewa Road, Orrville, Ohio 44667. TF

HI-RANGERS AERIAL BASKETS 65', 57', and 53'. Skyworkers aerial baskets 65', 50', 40'. Vermeer stump cutter 1560,6. Vermeer tree spade 66, TS 44. Asplundh bucket and brush chippers, Bean sprayer, 9 ton trailer. Parkway Tree Service, 12026 W. Cherry, Wauwatosa, Wisc. 53226. (414) 257-1555. TF

TREE TRIMMING EQUIPMENT—Aerial basket trucks with chip boxes and chippers (1970-1975). Priced to sell—offers accepted. Call (218) 724-7622, or write ATS, P.O. Box 3280, Duluth, MN 55803. TF

TRACTOR AND COMBINE. STAINLESS STEEL, LIKE NEW. DISPERSES LIQUIDS, SOLID CHEMICALS, SEEDS, AERATES AND ROLLS. INCLUDES TRACTORS, TRAILERS, PLUS MANY SPARE PARTS. FITS THRU ANY STANDARD GATE. ALSO PORTABLE AERATOR. WRITE: P.O. BOX 44, WINCHESTER, MA 01890, OR CALL (617) 245-1476. TF

FOR SALE

LAWN SEED. Wholesale. Full line of top quality grasses. Improved bluegrass varieties, fine fescues and fine bladed ryegrasses. We specialize in custom mixing. Oliger Seed Company, 2705 Wingate Avenue, Akron, OH 44314. Call collect (216) 753-2259. TF

TREE FERTILIZATION GUN, tested on over a million square feet of trees and shrubs all over the U.S. Good to 500 psi, repairable, non-corrosive. Buy direct from manufacturer, $106.00. (shipping included). Arbor-Nomics, Inc., 5634-A Buford Highway, Atlanta, Georgia 30071. (404) 447-6037. TF

BUCKET TRUCKS, straight stick, corner mount and knuckle boom cranes. Sprayers, chippers, dumps, stakes, log loaders, crew cab chip box dumps, railroad trucks. 50 in stock. Sold as is or reconditioned. Opdyke's, Hatfield (Philadelphia area). 215-721-4444. TF

ZOYSIA a living carpet. Requires less maintenance and water. Locally grown. Tischler Grass Farm, Austin, Texas. (512) 452-1230. 12/85

Spray Trucks. 1977 GMC C-65, 800 gallon Finn tank. 1978 IH 1600 Loadstar, 800 gallon Finn tank. 1978 Chevy C-50, 3 year old 1120 gallon Wanner tank. All fine condition, used daily, built to spray granular slurry. 303-233-5296. 12/85

Christmas Trees—plantation grown balsam fir, Douglas fir, Frazer fir, blue spruce, white pine; also balsam wreaths and brush, white pine and princess pine roping. Gialanella Evergreens, P.O. Box 326, Lincroft, NJ 07738. (201) 741-7255. 11/85

FOR SALE—Established sod farm in beautiful Western Colorado. 170 acres of sod plus equipment and 4 homes. Call (303) 858-7464 or write to: Jim at 1268—18½ Road, Fruita, CO 81521. 12/85

FOR SALE: 170 acre sod farm, 60 miles from New Orleans market. Unlimited water. (318) 325-4598. 12/85

Franchised Lawn Care Business. East Central Florida. Over 500 Accounts. $100,000 plus gross. Liquid and Dry Applications. Please reply to: P.O. Box 9796, Daytona Beach, Florida 32020. 12/85

LANDSCAPING GRAVEC—Smooth rounded glacial stones in beautifully subdued earthtones. Sizes: 6" by 10"-3" by 6"-1½" by 3". Also, natural Black Pea Gravel and White Sand. 314-624-7391. 11/85

For Sale—Reinco 1000 gallon Hydroseeder mounted on 1974 International truck in good condition. Call 215-323-3560. 10/85

Established TREE SERVICE BUSINESS- Owner retiring, 35 years in business, 10 years in S.W. Louisiana. Excellent opportunity for young, energetic individual. All equipment and clientele. 57' Skyworker Bucket Truck on F-700, One Ton Dump Truck, Winch Truck and Equipment Truck, 2 Ton with Chipper Box, 630 Vermeer Stump machine, 12" Wayne Chipper, Bean Spray rig with 500 gallon Tank on Heavy duty trailer, saws and many other tools. Small Crew and management willing to stay or your own. Serious inquiries only- $100,000.- 318-433-4460- AAA Tree Surgery, Inc. 427 Kirby St., Lake Charles, LA 70601. 11/85

Priced to sell! 500, 750, 1250 gal sizes to choose from. Single and multi-compartmented units w/ PTO or aux engines. Dual electric reels. Chassis are 79-81 Chevy 1 & 2 ton priced from $6,000 - $9,000. Begin making money today! (714)625-4777 PST. 11/85

Landscape MAINTENANCE Business for Sale: Sarasota, Florida. Not seasonal work. Gross annual income excess of $400,000. Constant monthly cash flow, averaging twelve yearly commercial contracts. Call 813/371-2432. 11/85

For sale: Established lawncare company in Northeast Ohio. Approx. $65,000 gross annually serving 400 accounts. All equipment included. Owner selling due to health. Call (216) 726-1449. 11/85

FOR SALE: 1981 Atwater Strong Leaf-Vac, used 1 season, 16HP, trailer mounting; 1980 John Blue Vac-U-Seal 2" self-priming pump, 5HP, 220 elec., 250 GPM, never used; 1978 E-Z-GO Truckster with Meyers boom sprayer, foam marker, PTO; Ryan Greensaire II Aerator; 2 Hannay reels, 12 volt recoil, ½". Call 317-284-0389. 11/85

BROUWER HARVESTER OWNERS! ELECTRIC DEPTH CONTROL. Save time and money with improved quality control. Make depth-of-cut adjustments, on the move, with one button finger tip control. Allows you to cut longer rows through varying soil conditions. $795.00. 30-day satisfaction guarantee and full-year warranty. Write or call: Shattuck Turf Equipment, 1872 N.W. 82nd, Des Moines, IA 50322, (515)278-5255. Patent pending. 11/85

"TROUBLE SHOOTING IRRIGATION CONTROL SYSTEMS" Learn quick diagnosis and repair. Train yourself, train employees. Save valuable time with this very "un-technical" manual written in every day language. Lots of examples and diagrams for beginners or veterans. Tells ONLY what you must know about valves, simple electricity, meters. Send $15.00 prepaid to: "Repair Book", c/o Bill Derryberry, 4849 E. Pinchot, Phoenix, AZ 85018. 12/85

HYDRO-MULCHERS AND STRAW BLOWERS New and used. **JAMES LINCOLN CORPORATION,** 3220 S. Jupiter Rd., Garland, TX 75041. (214) 840-2440(TX), (800) 527-2304 (except TX) TF

BALL BARRIER NETTING: Made of olefin fibers. 6 ½ feet and 25 feet high. Strong and tough. Will not rust. Easy to handle. For Driving Ranges and Golf Courses. Keep golf balls from straying off-course. J.A. Cissel Mfg. Co., P.O. Box 339, Farmingdale, NJ 07727. 1-800-631-2234. TF

Douglas Fir, Scotch Pine and Quebec Plantation Balsam. Reliable, Consistent Quality. Two convenient loading areas: So. of Wilmington, DE and So. of New Brunswick on NJ Turnpike. PLANTATION CHRISTMAS TREES, 2132 Oreville Rd., Lancaster, PA 17601. Call 717-397-9236 9-8, Mon-Sat. 11/85.

1979 SPYDER FORKLIFT, good running condition $7,900. Green Valley Turf Farms, Inc., Box 163, Canfield, Ohio 44406. 216-533-3354. 11/85

Spyder Forklift Parts—Mobile Lift Parts has replacement parts for your Spyder. Torque hubs also available. Call or write: Mobile Lift Parts, 5402 Edgewood Rd., Crystal Lake, IL. 60014. 815-455-7363. 12/85

For Sale—Hydraulic auger-Hex shaft (Danuser) for hookup to backhoe or aux. 3-point PTO driven pump with hydraulic reservoir, 36", 24", 18" augers excellent condition $2,500.00. Call 215-323-3560. 11/85

For Sale—2 Ryan Greensaire aerators. One complete and in good condition; second is for parts but could be reconditioned. Total cost for both $1,800. Call 321-773-0661. 11/85

Replacement parts that fit **BOBCAT, BUNTON, KEES, EXMARK, ETC.** Main drive belt. **DUMP-CATCHER.** Over 100 items in our new catalogue. Call 1-800-428-8004. Preco Distributors, 2400 Boston Rd., Wilbraham, MA 01095. 3/86

WANTED

Wanted to buy **HYDRO SEEDER**. Please send photo. Johnson Hydro Seeding Corp., 13751 Travilah Road, Rockville, MD 20850, 301/340-0805. TF

WANTED: Large Lindig and Royer Shredders. Lewis Equipment, 320 Third Street S.W., Winter Haven, FL 33880. (813) 294-5893.

Wanted To Buy: RYAN SPIKEAIRE in any condition. 201-472-8298. 12/85

POSITION WANTED

Chemical Lawn and Tree Care Manager—Seeks challenging management position for same in Florida. Seven years experience. Resume upon request. Write WTT Box 349. 12/85

EDUCATIONAL OPPORTUNITIES

LEARN GOLF COURSE SUPERINTENDING, PARK SUPERVISION, IRRIGATION MANAGEMENT, LANDSCAPE CONTRACTING, FULLY ACCREDITED, VA APPROVED, EXPANDED FACULTY AND FACILITIES; MAJOR ONGOING TURFGRASS RESEARCH PROJECT. MANY JOB PLACEMENT OPPORTUNITIES, FOR INFORMATION CONTACT: DEPARTMENT OF GOLF COURSE OPERATIONS LANDSCAPE TECHNOLOGY; WESTERN TEXAS COLLEGE, SNYDER, TEXAS 79549 9/85

MISCELLANEOUS

FREE PARTS CATALOG—If you own a 36"—48"—52" walk-behind mower and you feel you're paying too much for parts, call Preco Distributors toll-free and request our parts catalog. **BELTS, BLADES, GRASS CATCHERS, WHEELS AND LOTS MORE!** Replacement parts that fit: **BOBCAT, BUNTON, KEES, EXMARK & OTHERS.** 1 day shipping coast to coast available. All parts carry a 90-day warranty. Don't wait, call 24 hours a day. **TOLL-FREE 1-800-428-8004, in Mass. 413-596-5505. PRECO DISTRIBUTORS, 2400 BOSTON ROAD, WILBAHAM, MA 01095.** 12/85

Use Our Classified Blind Box Service for Confidential Results!

Olathe MODEL 12 P.T.O. CHIPPER

PORTABLE
DEPENDABLE
ECONOMICAL

- Less than ½ the price of equal capacity chippers
- Fits most tractors from 25 to 100 H.P.
- Mulch-type chip. 5 to 6" branch dia. capacity
- Patented safety throw-out —stops feed instantly
- Folding feed apron & chute for easy transport

Popular 3-pt Hitch Model or Pull Type Trailer Option

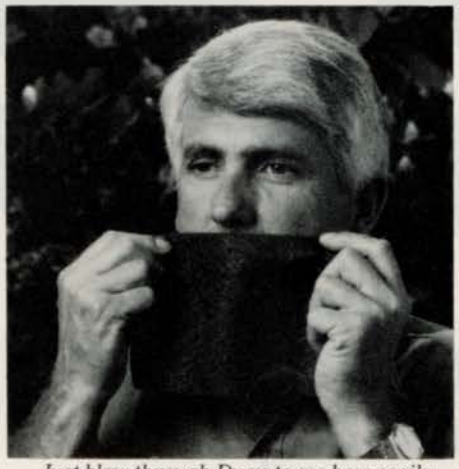
OLATHE MANUFACTURING, INC.
100 Industrial Parkway
Industrial Airport, KS 66031

800-255-6438
913-782-4396

Circle No. 136 on Reader Inquiry Card

THIS TEST WON'T HOLD WATER —OR AIR.

Water passes easily through highly permeable Duon Weed Control Mat.



Just blow through Duon to see how easily air passes through it.

The proof is stronger, longer lasting plants with DUON® Weed Control Mat.

Both water and air pass easily through Duon Weed Control Mat, made of Phillips Fibers nonwoven polypropylene. As a landscaper, you know how important that is to a plant's root system and to the future well-being of your big landscape jobs—especially those you use as references.

When water and air can't get through, plants die. Black plastic won't work for the long-term. And woven polypropylenes are nowhere near as permeable as nonwovens. For example, the air permeability for nonwoven Duon is about 14 times greater than for woven polypropylenes and the water permeability for Duon is about 10 times greater.

Put our words to the test. Hold Duon under running water, then take another piece and breathe through it. Then try the same test with a competitive weed control mat.

When covered from sunlight, Duon is virtually permanent. It allows plants to thrive and impedes about 95% of weed growth (in most areas). It also keeps mulch from going down into the soil.

For your quality landscape jobs, order Duon. For further information, call Phillips Fibers (803) 242-6600.

MARKETED THROUGH:

Blunk's 8923 South Octavia
Bridgeview, IL 60455

On the West Coast:
BRUCE KING & CO.
1055 Bertelsen Rd. • Eugene, OR 97402

PHILLIPS 66

PHILLIPS FIBERS CORPORATION
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY
TEXTILE NONWOVEN FABRICS MARKETING
P. O. BOX 66, GREENVILLE, SC 29602
(803) 242-6600

*Trademark Phillips Petroleum Company

Circle No. 139 on Reader Inquiry Card

New Jersey Turfgrass

EXPO '85

Alive In '85

Resorts Int'l.
Atlantic City, NJ
Dec 2-5, 1985

The Annual Turfgrass Educational Conference and Trade Show, sponsored by the New Jersey Cooperative Extension Service in cooperation with the turfgrass research and teaching programs at Cook College - Rutgers University and the New Jersey Turfgrass Association offers More in '85. Sessions will include: Workshops (Computers, Insects, Weeds, Motivation) and lectures by recognized authorities on the establishment and maintenance of turf on golf courses, athletic fields, lawns of various types and use of sod. The Trade Show will feature the latest technology in turfgrass equipment, irrigation and products.

Reserve the date, plan to attend and participate in this exciting annual Turfgrass Conference. Complete program details and registration forms available October 1, 1985. For information contact:

Dr. Henry W. Indyk, General Chairman
Extension Specialist in Turfgrass Mgt.
Soils & Crops Department - Cook College
P.O. Box 231 New Brunswick, N.J. 08903
Telephone: (201) 932-9453

Two for the Show.

HBJ HARCOURT BRACE JOVANOVICH PUBLICATIONS
AND
HBJ HBJ EXPOSITIONS and CONFERENCES

■It takes two. It takes the double-team power of two smoothly coordinated business units to bring out the best in a trade show. The best Audience. Best Exhibitors. Best Conference. The best in growth, prestige and earnings for the sponsoring association or group.

The two business-building units needed are here and now. For market reach and influence; Harcourt Brace Jovanovich Publications, the largest publisher of business magazines and journals in America. For the expertise to research, create, develop, manage and produce; HBJ Expositions and Conferences.

Are You One for the Money?

Perhaps your organization is considering the new business advantages of creating a Show. Or you want the Show you now sponsor to grow in size and profitability. You might even own an established Show available for acquisition.

If so, contact Rod Ellis at HBJ Expositions. There are infinite means by which we can bring out the best for you.

HBJ

HBJ EXPOSITIONS and CONFERENCES

P.O. Box 2044 / 383 Main Street / Ridgefield, CT 06877

Phone (203) 438-5012 Telex 968918

AD INDEX

NO.	ADVERTISER	PAGE
101	Atwater Strong Division	56
102	Aquatrols Corp. of America	18
103	Brouwer Turf Equipment	31
104	Bunton Company	57
105	Cushman Turf	4-5
106	Cushman Ryan	47
107	Columbia Car	12
109	John Deere & Co.	32-33
110	Dow Chemical U.S.A.	Cv2-p.1
112	Encap Products Company	15
114	E-Z-Go	51
115	Glenmac Inc.	50
116	Goossen Industries	50
117	Gravely International	61
118	Hahn Inc.	71
119	Carl Heald Inc.	73
275	Howard Price Turf Equip.	35
121	Jacobsen/Textron	67
122	Kubota Tractor Corp.	27
123	Lebanon Chem. Corp.	82
124	Lebanon Chem. Corp.	7
125	Lesco Inc.	3
126	Lesco Inc.	46
247	Lofts Inc.	Cv4
128	Mallinckrodt Inc.	45
131	Milliken	55
130	Monsanto Agri. Prod.	42
132	Morbark Co.	64
133	National Mower Co.	72-73
134	Northrup King Co.	59
135	Olathe Mfg. Inc.	73
136	Olathe Mfg. Inc.	78
137	O.M. Scott & Sons	29
138	Oregon Fine Fescue Comm.	37
139	Phillips Fibers Corp.	79
152	Rhone-Poulenc	52-53
153	Rhone-Poulenc	19
140	SDS Biotech	16-17
141	Stauffer Chem. Co.	68-69
223	Stauffer Chem. Co.	81
143	Standard Golf	28
144	Tee-2-Green	39
145	Tennant Co.	56
146	Toro Company	24-25
147	Trojan Batteries	Cv3
148	Turf Seed	13
149	Turf Vac Corp.	38
150	Union Carbide	40-41
151	United Agri Products	65
154	Woods/Division of Hesston	21

This index is provided as an additional service. The publisher does not assume any liability for error or omissions.

LEBANON GETS OUT THE HEAVY ARTILLERY AGAINST CRABGRASS AND GOOSEGRASS!

RONSTAR®

Your best defense is a strong offense.

And that offense should begin with Country Club 19-4-6 Fertilizer with Ronstar®—the pre-emergence herbicide from **Lebanon.** Whether your battlefield is northern grasses or southern, Ronstar beats back such difficult enemies as crabgrass, goosegrass and broadleaves such as pigweed, Florida pusley, oxalis, stinging nettle and carpetgrass.

Unchallenged performance, selectivity and safety.

Ronstar is a proven leader with season-long, lasting power. Yet, deadly as it is to weeds, it's safe to cool season grasses, as well as to ornamentals—even if they're newly transplanted!

Because of its superior selectivity, Ronstar can be applied any time of year prior to weed germination. It gives season-long control, too, because it won't leach through the soil.

Maximum Ronstar effectiveness in Lebanon Country Club 19-4-6 Fertilizer.

You won't find a more cost-effective way to control weeds. That's because Ronstar is impregnated on our premium Country Club 19-4-6 Fertilizer with 25% organic nitrogen. You get more efficient particle distribution and extended feeding. So you only need one application—a significant savings of time and money!

And, of course, Ronstar is backed up by **Lebanon's Total Turf Care**—an excellent network of sales representatives, distributors and service professionals who will see that you get the quality products you need. For more information on Ronstar or our full line of fertilizers, SCU blends, combination products and straight chemical products, call our **Greenline** today at **1-800-233-0628,** in Pennsylvania, call 717-273-1687. And start getting better weed control . . . from the ground up.

Lebanon
TOTAL TURF CARE
A division of Lebanon Chemical Corporation
P.O. Box 180 • Lebanon, PA 17042
BETTER TURF CARE FROM THE GROUND UP.

® Ronstar is a registered trademark of Rhone-Poulenc, Inc.

Circle No. 123 on Reader Inquiry Card

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

Statement required by the Act of October 23, 1962, Section 3685, Title 39, United States Code, showing the ownership, management and circulation of WEEDS TREES AND TURF MAGAZINE published monthly at One East First Street, Duluth, St. Louis County, Minnesota 55802, as filed October 1,1985.

The name and address of the Publisher is: Dick Gore, 455 East Paces Ferry Rd., Ste. 324, Atlanta, GA 30305

The owners are: Barclays Nominees Branches Limited, 4 George Yard, Lombard St., London EC3, England; Cede & Co., c/o The Depository Trust Co., P.O. Box 20, Bowling Green Station, New York, NY 10274; Katharine Brace Cummings, c/o Ernst, Cane, Berner & Gitlin, 7 West 51st Street, New York, NY 10019; Mrs. Thekla E. Johnson, 19 Hewitt Avenue, Bronxville, NY 10708; Walter J. Johnson, 19 Hewitt Avenue, Bronxville, NY 10708; William Jovanovich, c/o Harcourt Brace Jovanovich, Inc., 6277 Sea Harbor Drive, Orlando, FL 32821; Kray & Co., 120 South LaSalle Street, Chicago, IL 60603; Pacific & Co., P.O. Box 7877, San Francisco, CA 94120; Rice & Co., c/o Agency The Toronto Dominion Bank, 42 Wall Street, New York, NY 10005; Joseph C. Sindelar, 794 Park Blvd., Glen Ellyn, IL 60137; Harcourt Brace Jovanovich, Inc. Employee Stock Ownership Plan, c/o Harcourt Brace Jovanovich, Inc., Orlando, FLorida 32887.

The known bondholders, mortgagees and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities are: None.

Names and addresses of individuals who are stockholders of the corporation which itself is a stockholder of the publishing corporation have been included in the two paragraphs above when the interests of such individuals are equivalent to 1 percent or more of the total amount of the stock or securities of the publishing corporation.

Average number of copies each issue during the preceeding 12 months, and actual number of copies of single issue published nearest to filing date, respectively, are as follows: Total number of copies printed (net press run): 49,621 - 49,833; paid and/or requested circulation (1) sales through dealers and carriers, street vendors and counter sales: None - None; (2) mail subscriptions (paid and/or requested): 45,340 - 45,454; total paid and/or requested circulation: 45,340 - 45,454; free distribution by mail carrier or other means, samples, complimentary, and other free copies: 3,738 - 3,822; total distribution: 49,078 - 49,276; copies not distributed (1) office use, left over, unaccounted, spoiled after printing: 543 - 557; (2) return from news agents: None - None; total: 49,621 - 49,833.

I certify that the statements made by me above are correct and complete.

(Signed) Joe Bilderbach
Vice President/Circulation

Sponsored by
THE NATIONAL
ARBORIST ASSOCIATION

1985 Pesticide Application & Calibration Seminar

THE HYATT REGENCY/OHIO CENTER,
COLUMBUS, OHIO, DECEMBER 4, 1985

Going to ARBOR EXPO 85? Come a day early and attend the National Arborist Association **1985 Pesticide Application and Calibration Seminar.** The seminar is an intensive one-day session on the proper techniques for applying pesticides to trees of all sizes.

The seminar also offers training in the function and operation of hydraulic sprayers, including cost-saving instruction on calibration and proper equipment set up. Owners, managers, field personnel, and anyone else involved in the application of pesticides to trees will benefit. Recertification credits will be given to those attending, and each person will receive a manual covering the subjects discussed.

This is one seminar you won't want to miss! Mail in the coupon below or call (603) 472-2255 for more information.

Please send me more information:

NAME, COMPANY _____

ADDRESS _____

CITY, STATE, ZIP _____

Mail to: National Arborist Association, 174 Route 101, Bedford Station Box 238, Bedford, NH 03102

The ProSource

Small investment with a big return

Membership in PLCAA gives you a competitive edge, and in today's tough lawn care market a competitive edge often equals survival. A year's membership in PLCAA can cost as little as $150—just $2.90 a week. That's a big return for a small investment.

- Keep up with the latest in lawn care techniques with PLCAA technical publications, regional seminars, and our annual Conference and Show.
- Get valuable business guidance from PLCAA's ongoing series of management publications, publications like our **Management Monograph** series, and our **Legal Update Bulletin.**
- And there's more—group medical and life insurance, a credit association to help you with those delinquent accounts, plus many other benefits. To find out how PLCAA can help you, phone us at (404) 977-5222, or fill out the coupon and mail it in today!

Symbol of Good Practice
PLCAA
PROFESSIONAL LAWN CARE ASSOCIATION OF AMERICA

Send me more information on what PLCAA can do for my business.

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____

ZIP _____ PHONE _____

Clip and mail to: Professional Lawn Care Association of America
1225 Johnson Ferry Rd. NE, Suite B-220, Marietta, GA 30067

The bottom of the barrel?

Both the lawn care and landscape maintenance fields are growing at rates of 20 percent per year. One knowledgable person predicts that staffing in the chemical lawn care industry, alone, will triple in five years.

So where are all those new employees going to come from? Not an easy question, and nobody's got an answer yet.

"Do you realize what's required to find a good employee in the greater Boston area?" asks John Kenney of Turf Doctor, Framingham, Mass. "The unemployment rate's two percent—two percent! So our employees are coming out of Pittsburgh and Buffalo. We're relocating people with funny accents, and we're investing a lot of money in them."

Industry experts predict that there will always be high turnover associated with the lawn and landscape markets. "You can't expect someone in a line-level position to get a lot of self-gratification out of pulling hose," Kenney continues. "If that person isn't getting gratification out of something else while he's out there, then you're going to turn them over in 12 months."

If there is an answer, it lies in what Don Burton of Lawn Medic, Rochester, N.Y., calls "creative management." Marty Erbaugh of Lawnmark Associates, Peninsula, Ohio, calls it "holding out the carrot."

What they mean is that the employer—either LCO or landscape maintenance contractor—must challenge line-level personnel. Applicators and crews must have a chance to work with other people (clients and co-workers). They must be given responsibilities other than lugging around a hose or hopping on a mower, in order to retain a high interest level in their occupation.

Mostly, as Erbaugh so eloquently says, "the traditional methods of developing, hiring, training, and motivating people have to be challenged in order to meet the needs of the industry."

Jerry Roche

Jerry Roche, editor

WT&T Editorial Advisory Board

Bruce Augustin
Turf Specialist
University of Florida
Ft. Lauderdale, FL

Doug Chapman
Horticulturist
Dow Gardens
Midland, MI

J.R. Hall
Extension Agronomist
VPI & SU
Blacksburg, VA

Kent Kurtz
Professor
Horticulture
Cal Poly-Pomona

Harry Niemczyk
Professor
Ohio State University
Wooster, OH

A. Marty Petrovic
Asst. Professor
Cornell University
Ithaca, NY

Robert Shearman
Assoc. Professor
University of Nebraska
Lincoln, NE

If they don't mind walking, any battery will do.

Don't expect compliments on an electric golf car that always gets them there and back. It's only doing its job. But when it fails because its batteries couldn't carry the load, you'll hear about it.

The answer is simple and certainly no secret. Just make sure that those golf cars have Trojan Batteries. Because Trojans are the ones with the power to keep on working long after other batteries have given up.

And for a number of reasons. Such as Trojan's newly designed polypropylene case that's 6 pounds lighter than rubber cases, yet more resistant to cracks, breaks or leaks. . . separators designed to Trojan's specifications to greatly extend battery life . . . new advance designed plates that get more complete golf rounds per charge for a longer period of time.

We could go on and on, but that's what Trojan Batteries have been doing for more than half a century.

If you're not already using Trojan Batteries, we suggest you get the complete story. Then you'll know why so many new golf cars come with Trojan Batteries. And why Trojan is in such demand as the replacement battery.

Call or write Trojan Battery Company, 12380 Clark Street, Santa Fe Springs, Ca., 90670, (213) 946-8381.
Outside California (800) 423-6569

TROJAN
The better battery

Circle No. 147 on Reader Inquiry Card

Prelude

The "all-purpose" Perennial Ryegrass

Golf courses, home lawns, athletic fields, parks, school campuses, racetracks or cemeteries . . . anywhere you need a perennial ryegrass, you'll get top performance from Prelude.

Check the latest university reports. North and South, Prelude has been taking high honors for overall turf performance in trials against other turf-type perennial ryes. Prelude consistently outperforms such popular varieties as Pennfine, Derby and Manhattan.

In fact, Prelude has performed so well that it's now recommended for use on TPC (Tournament Players Club) golf courses. And that's quite an endorsement.

Whether you're establishing a new lawn, or overseeding existing turf, try Prelude perennial ryegrass. You'll get a thick, lush, dark green cover that establishes easily and quickly while standing up to heat, drought, and disease. If traffic is your concern, Prelude recovers quickly after being abused by golf carts, or the wear and tear of a football game. Prelude turf-type perennial ryegrass: a top performer for all uses.

Lofts Inc.

Bound Brook, NJ 08805 (201) 356-8700 (800) 526-3890

Lofts/Maryland
Beltsville, MD 20705
(301) 937-9292

Lofts/Great Western
Albany, OR 97321
(800) 547-4063
(503) 928-3100

Lofts/New E
Arlington, M
(617) 648-75

Circle No. 247 on Reader Inquiry Card

Endorsed by TPC Courses